

PHASE 2 SITE INVESTIGATION REPORT

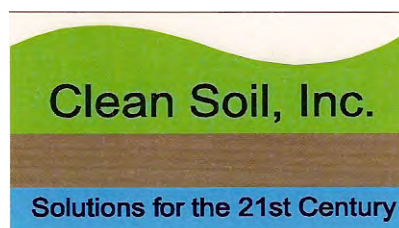
9951 Greenleaf Avenue

**Southeast Corner of
Waste Disposal Group Inc. (WDI) Superfund
Site
Santa Fe Springs, CA**

**Prepared For:
Greve Financial Services. Inc.
19130 Figueroa Street
Gardena, CA 90248**

**Prepared By:
Clean Soil, Inc.
23811 Washington Avenue C-110, Suite 241
Murrieta, CA 92562**

April 2009



**Phase 2 Report 9951 Greenleaf Avenue
Southeast Corner of
Waste Disposal Group Inc. (WDI) Superfund Site, Santa Fe Springs, CA**

Prepared for:

Greve Financial Services, Inc.
PO Box 1684
Lomita, CA 90717



Prepared by:

Mark Slatten
California Certified Engineering Geologist # 1605
Clean Soil, Inc.
23811 Washington Avenue
Murrieta, California 92562
(951) 732-9239 (office); (951) 970-6955 (cell)

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	PROPERTY IDENTIFICATION.....	5
1.2	CURRENT SITE CONDITIONS.....	6
1.3	OBJECTIVE, PURPOSE, AND GOAL	7
1.4	LIMITATIONS	7
2.0	BACKGROUND	8
2.1	TOPOGRAPHY	8
2.2	SITE GEOLOGY	8
2.3	SITE HYDROGEOLOGY.....	9
3.0	RESULTS OF PREVIOUS FIELD INVESTIGATIONS.....	10
4.0	FIELD ACTIVITIES	13
4.1	SOIL SAMPLING.....	13
4.2	SOIL VAPOR SAMPLING FOR METHANE.....	14
5.0	RESULTS AND CONCLUSIONS.....	14
6.0	DISCLAIMER.....	16
7.0	REFERENCES.....	16

FIGURES

Figure 1-1	Site and Property Location Map
Figure 3-1	Locations of RI Environmental Samples
Figure 3-2	Proposed DPT Drilling Locations
Figure 3-3	Site Features and Proposed Boring Locations

TABLES

Table 3-1	Semi-volatile and non-Priority Pollutant Concentrations at the Property, Santa Fe Springs, CA
Table 3-2	Methane and Other Hydrocarbon Concentrations at the Property, Santa Fe Springs, CA
Table 3-3	Inorganic Constituent Concentrations at the Property, Santa Fe Springs, CA
Table 3-4	Inorganic Constituent Concentrations that Exceed the PRGs at the Property, Santa Fe Springs, CA

APPENDICIES

Appendix A	DPT Drilling and Sampling Standard Operating Procedure (SOP)
Appendix B	Health and Safety Plan (HASP)
Appendix C	Boring Logs
Appendix D	Laboratory Results and Chains-of-Custody

1.0 INTRODUCTION

This limited Phase 2 Site Investigation was conducted by Clean Soil, Inc. (CSI) to satisfy the requirements of potential buyers of 9951 Greenleaf Avenue, Santa Fe Springs, CA (the "Property"), referred to in the literature as the "Campbell Property", "Areas 6 and 7", or "Parcel 49". The Property occupies a part of the Waste Disposal Group, Inc. (WDI) Superfund site (the "Site"). The combined *RA Completion Report and As-Built Report* (TRC 2006) was referenced by CSI to identify the southern portion of the Property that is underlain by a *RCRA Subtitle D- equivalent Cover*. It was the expressed desire of the current owner (Greve Financial Services), the potential buyer, and CSI to avoid penetrating the USEPA-approved remedy during this investigation. The USEPA (Region 9) and the Army Corps of Engineers both approved the boring locations proposed in a March 2009 work plan prepared by Clean Soil, Inc. (CSI 2009a).

The contents of this section will detail the Site background, Site identification, current Site conditions, Phase 2 objectives, and project limitations. Section 2 presents the geology and hydrogeology of the Site; Section 3 discusses the results of previous geotechnical and environmental investigations of the Property; Section 4 presents the Phase 2 field work; Section 5 outlines the results and conclusions of the investigation; and Section 6 is a list of references.

The WDI Site is located in the City of Santa Fe Springs, Los Angeles County, California on approximately 38-acres of land. It is bordered on the northwest by Santa Fe Springs Road, on the northeast by the former Fedco Distribution Center and a private high school, on the southwest by Los Nietos Road, and on the southeast by Greenleaf Avenue (see **Figure 1-1**).

The Site was conceptually divided into eight areas (Areas 1 through 8) based on previous uses and conditions during the Initial RI/FS period as shown in **Figure 1-2** (TRC 2006). The eight areas are comprised of 22 parcels. Various businesses are currently operating on 19 of the parcels; 3 of the parcels are currently vacant.

A 42-million-gallon-capacity reservoir is buried in the central portion of Area 2. The northern portion of Area 2 was covered with an asphalt parking lot and was used for recreational vehicle (RV) storage prior to the start of construction of the RCRA D-equivalent Cover. The remaining portion of Area 2 was undeveloped. Area 1 (located along Santa Fe Springs Road) and Area 8 (located along Los Nietos Road) contain most of the light industrial complexes and small commercial businesses that are present on the Site. Areas 3 through 7 extend along

Greenleaf Avenue. Areas 3 and 4 are undeveloped and are the closest property boundary to nearby residential areas (approximately 50 feet). The building located in Area 5 is used for a commercial business. Areas 6 and 7 are unoccupied, but contain several concrete foundations that remain from previous structures.

The reservoir was used for crude oil storage from the Santa Fe Springs oil field from 1924 to some undetermined time, probably in the 1930s. During this period, various activities were being performed outside the reservoir, including the storage and mixing of drilling muds. It is inconclusive from aerial photograph review whether waste disposal activities were being systematically carried out during this period.

Beginning in the late 1940s to early 1950s, the Site was used for disposal of a range of waste and solid fill materials. After 1949, waste disposal activities were regulated under permit from Los Angeles County, Department of Sanitation until facility closure in 1964. Reliable documentation on disposal was not maintained. As a result, a comprehensive history of Site disposal practices or accepted waste is not available. However, permitted waste included the following: rotary drilling muds; clean earth, rock, sand and gravel; paving fragments; concrete, brick; plaster; steel mill slag; dry mud cake from oil field sumps and acetylene sludge. Investigations have shown that disposed material also included organic wastes, oil refinery waste, solvents, and waste chemicals. Wastes were disposed primarily within the reservoir boundary and in bermed areas surrounding the reservoir. However, field investigations and aerial photograph analyses indicates occurrence of wastes throughout most of the Site.

In 1953, the Site began receiving fill material to cover the Site including the reservoir area and unlined bermed disposal pits. The filling of the reservoir area continued until approximately 1966 when grading of the Site was completed.

The WDI Site was placed on the NPL in July of 1987. In 1988, the EPA undertook a removal action. During the years 1988 to 1993, EPA undertook an RI/FS (EPA, 1993a) which led to a selected remedy for the Site presented in the Record of Decision (ROD) (EPA, 1993b).

The Settling Defendants for the Site (a Group of Potentially Responsible Parties who carry out the requirements of the ROD under the Site orders and decrees) organized the WDIG. The WDIG conducted a series of pre-design field investigations and treatability studies during 1995 through 2001 under Administrative Order (AO) 94-17 and Amended Administrative Order (AAO) 97-09. The results of these activities were reported in the Remedial Design

Investigative Activities Summary Report (Revision 2.0) (TRC, 2001a). After incorporating comments from the EPA and DTSC, the report was approved in June 2001.

The pre-design field investigations changed the conceptual model for the Site and identified additional conditions to those considered for selection of the remedy incorporated in the ROD. Therefore, a Supplemental Feasibility Study (Revision 4.0) (SFS) (TRC, 2001b) was prepared in 2001. Based on the results of the SFS, the EPA selected a revised remedy, which was incorporated in the Amended Record of Decision (AROD], EPA, 2002). A Remedial Design was prepared to construct the remedy presented in the AROD, and the Remedial Design Report (TRC, 2003a) was approved by EPA in June 2003.

During the development of the AROD, the EPA and WDIG negotiated a Consent Decree for implementation of the remedial design. The Consent Decree was entered by the United States District Court, Control District of California in 2003 (EPA, 2003). The RA Completion Report is one of the deliverables required under the Consent Decree and is included in the CCR as Section 4.0.

The implementation of the remedial design at the Site was initiated in March 2004 and the remedial design construction work was performed according to the Remedial Design Report (TRC, 2003b), RAWP (TRC, 2004a) and associated management plans. The remedial construction work has been completed and all construction activities performed onsite are documented in the Construction As-Built Report.

The Site has been the subject of various investigative activities from the early 1970s through 2002. These activities have included the investigation of the physical and chemical characteristics of the soil, groundwater, soil gas, and liquids located within and outside the reservoir boundary, and in-business air onsite.

The Site conditions are summarized in the following sections. A complete description of the objectives and findings of the Site investigations are provided in the following reports:

- TRC, 2000, *Draft TM No. 13 Reservoir Liquids Removal Closeout Report, Waste Disposal, Inc., Superfund Site*, August 2000.
- TRC, 2001c, *Final Supplemental Subsurface Investigation, RD Investigative Activities, Waste Disposal, Inc., Superfund Site*, February 2001.

- TRC, 2001a, *Remedial Design Investigative Activities Summary Report (Revision 2.0)*, May 2001.
- TRC, 2002, *2000 Annual Monitoring Report, Waste Disposal, Inc. Superfund Site*, February 2002.
- TRC, 2003b, *Final (100%) Design Report Soils, Subsurface Gas and Ground Water Remedial Design, Waste Disposal, Inc., Superfund Site*, May 2003.
- TRC, 2003a, *2001-2002 Annual Monitoring Report, Waste Disposal, Inc., Superfund Site*, April 2003.
- TRC, 2005a, *2003 Annual Monitoring Report, Waste Disposal, Inc. Superfund Site*, March 2005.

Soil borings were drilled at the WDI Site for geologic logging and chemical characterization during three primary periods of investigation: the 1988 RI conducted by EPA and the 1997 and 2002 Remedial Design Investigations conducted by both EPA and WDIG. Constituents detected in waste include volatile organic compounds (VOCs), primarily benzene, toluene, ethylbenzene, and xylene (BTEX); semi-volatile organic compounds (SVOCs); and heavy metals such as arsenic, chromium, copper, and lead. Waste and contaminated soil have been identified throughout Area 2, which contains the buried reservoir, and portions of Areas 1, 4, 5, 6, 7, and 8 where other buried wastes have been found.

The Remedial Design Report provides a delineation of the buried waste extent. **Figure 1-2** shows the locations of the various parcels, what businesses are located on them, and the limits of the waste. Site investigations have shown that 11 of the 22 parcels have structures located over buried waste; 8 other parcels have structures, but there is no waste underlying the structure. The three unoccupied parcels have underlying waste, but no structures. The buried waste and impacted soil ranges in thickness from an average of approximately 5- to 10 feet to a maximum of 20 feet.

Soil gas "hot spots" are present in the subsurface (vadose zone) within and outside the reservoir (in Area 2) in several areas of the Site, including shallow fill soils, buried waste material, and deeper native soils. The "hot spots" are characterized by elevated levels (e.g., exceeding preliminary remediation screening levels) of BTEX, methane, petroleum hydrocarbons, and chlorinated VOCs in soil gas. The primary VOC constituents detected are methane, benzene, vinyl chloride, trichloroethene (TCE), and tetrachloroethene (PCE).

Multiple investigations have indicated the presence of perched liquids and/or leachate both within the reservoir area (in Area 2) and at various isolated

locations outside the reservoir. Liquids were encountered within the reservoir at depths ranging between 4- and 12 feet below ground surface (bgs). These liquids/leachate contain Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) hazardous substances, including but not limited to VOCs, such as benzene, toluene, ethylbenzene, and vinyl chloride; SVOCs; polychlorinated biphenyls (PCBs); and metals such as arsenic, chromium, and lead.

A description of the regional groundwater conditions and hydrogeology is included in the AROD and summarized in Section 2 of this work plan. Evaluation of Site groundwater data indicate that the primary VOCs detected are PCE and TCE at concentrations less than 20 µg/L. These VOCs have been detected only in the western portion of the Site. Based on groundwater flow conditions, the distribution of detections, and information on offsite groundwater contamination sites, the sources of the PCE and TCE detected in the monitoring wells in the western portion of WDI Site appear to be from solvent releases associated with upgradient industrial sites. Elevated concentrations of aluminum, iron, manganese, and selenium have been detected in groundwater samples, in local cases above primary or secondary drinking water standards. The fact that these metals are detected uniformly across the Site suggests that the elevated concentrations reflect regional water quality conditions and are not related to onsite sources.

1.1 *Property Identification*

The Property (formerly the “Campbell Property”, “Areas 6 and 7”, or “Parcel 49” in TRC, 2006, Figure 1.2) is located in the city of Santa Fe Springs, in Los Angeles County (see **Figure 1-1**, Site Location Map).. The Property is a 3.87-acre parcel located at the southeast corner of the WDI Superfund Site (Latitude: 37° 57.0' North, Longitude: 118° 03.0' West; Township 2 South, Range 11 West, Section 32 in reference to the San Bernardino Base Meridian). The Property is roughly rectangular with dimensions approximately 610 feet (parallel to Greenleaf Avenue) by 320 feet (parallel to Los Nietos Road). The property is bordered on the northwest by light industrial businesses (e.g. Rick’s Smog Service, E.D.M. Methods) and vacant land (soil cap), on the northeast by Atlas Heat Treating, on the southwest by Los Nietos Road, and on the southeast by Greenleaf Avenue. Residences are located across from the Property on Greenleaf Avenue. The properties across Los Nietos Road are occupied by industrial complexes.

Name and Address of the Site: 9951 Greenleaf Avenue (formerly "Campbell Property")
Part of Waste Disposal Group Inc. (WDI)
Superfund Site, Santa Fe Springs, CA

Contact Person: Greve Financial Services
C/o Mr. Joe Kennedy
19130 Figueroa Street
Gardena, CA 90248

Consultant: Mark Slatten, CA CEG 1605
C/o Clean Soil, Inc.
23811 Washington Avenue C-110 #241
Murrieta, CA 92562

1.2 Current Site Conditions

The Property is, except for a small trailer and several (former) building slabs, completely vacant and is graded flat. It is secured by 8-foot high fences along Los Nietos Road and Greenleaf Avenues. Four groundwater monitoring wells and three soil vapor monitoring wells currently exist on-site (see **Figure 3-1** for locations).

The Site is an NPL-listed Superfund site and EPA has approved a remedial action as completed by Waste Disposal Group, Inc. (WDIG, see combined *RA Completion Report* (TRC, June 1, 2006) and *As-Built Report* (TRC, September 14, 2006)). Oil-field-related waste materials currently exist beneath portions of the Property. Soil vapor is present and considered a waste. A RCRA Subtitle D-equivalent capping system has been engineered beneath the southern half of the Property to prevent rain (as groundwater) from percolating through the waste materials and creating a leachate that could potentially threaten potable waters of the State.

Deed restrictions have been recorded for the Property with the County of Los Angeles as part of the EPA-selected remedy. The deed restrictions have been recorded to prevent or mitigate penetrations of the capping system that would adversely affect the remedy.

1.3 Objective, Purpose, and Goal

The objective of this limited Phase 2 Site Investigation is to collect and quantitatively analyze original samples of soil and soil vapor in such a manner as to reduce uncertainties about the physical and chemical characteristics of these media. The purpose of this investigation is to better establish and define the areas of volatile organic compounds (VOCs) beneath the Property without compromising the existing remedial system that underlies portions the Property. The ultimate goal for the activities included within this investigation is to construct two buildings on the property. If the decision is made to construct buildings on the property, then:

Building foundations can be supported by piers or pilings as necessary to achieve adequate support for overlying structure. Foundation supports can penetrate the engineered capping systems as long as the building and foundation do not inhibit the function of the cap. For example, in the Subtitle ^equivalent cover areas, a building (which has a roof and a floor which divert rainfall) would perform the same function as the various caps, so protection of the cap under new buildings should not be necessary. It is also required that any future building foundation have a gas migration barrier (i.e., an FML) or engineered gas vent system underneath, as per City of Santa Fe Springs Regulations. (TRC, 2006, page 4-25)

If the decision is made to construct a parking facility, then:

Parking facilities, in particular for large trucks, may be constructed in the capped areas. However, as with building foundations, bearing capacity and settlement issues must be evaluated to assure that such facilities will not affect the integrity or function of the caps. Engineering analyses would need to be performed to verify compatibility with specific plans. As part of design, a preliminary bearing capacity analysis indicated a factor of safety of 1.5 or more against punching shear failure with a soil thickness over waste of 3 feet or more (ibid).

1.4 Limitations

This investigation is limited to the area originally referred to as the "Campbell Property", "Areas 6 and 7", or "Parcel 49" in the references cited in this report. The Property is currently owned by Greve Financial Services.

2.0 BACKGROUND

2.1 *Topography*

The surface elevation of the Property is about 150 feet above mean sea level (msl). Though the surface has been graded flat, surface drainage is complicated, due to slope variations and the several building slabs on the surface. Water has a tendency to pond in some areas on-site; however general drainage is to the south and east.

2.2 *Site Geology*

The Property is located northwest of the Santa Ana Mountains, which form the eastern boundary of the Los Angeles Basin. The site has, to the northeast, the La Habra Syncline and, to the southwest, the Coyote Hills (aka "Santa Fe Springs") anticline, in an area commonly referred to as the "Santa Fe Springs Plain". This plain is a gently rolling topographic feature that has probably been warped by the Santa Fe Springs - Coyote Hills anticline system and dips gently both to the northeast toward Whittier and to the southeast toward the Downey Plain.

The general geology beneath the Property has been interpreted by Ebasco Services Inc. (ESI, 1989), who constructed several cross-sections based upon CPT data (ESI 1989, Figures 4-2 through 4-5; Appendix C).

The soils beneath the site are fluvial (stream) deposits. The soils are coarse-grained, occasionally pebbly, channelized sands surrounded in places by finer-grained, lower energy, and laterally extensive beds. The variable thickness (3 feet to 20 feet) and variable lateral extent (30 feet to 1500+ feet) of individual channel deposits below the site suggest active, intermediate cross-cutting, channelized, fluvial deposits. These data suggest that a braided stream system was present for much of the site's most recent history.

A generalized, composite, northwest/southeast-trending cross-section (ESI, 1989, Figure 4-6) of the stratigraphy can be summarized as 4- to 15 feet of artificial fill material underlain by a silt layer ranging from 10- to 25 feet thick. Beneath the silt is a sandy, pebbly, channelized network of braided stream deposits that is at least 50 feet thick. The strata beneath the Property are interpreted by ESI (ibid) to dip 2- to 4 degrees to the northwest. The apparent direction of sediment transport has been interpreted by ESI (ibid) to be in a northeast to southwest direction.

2.3 Site Hydrogeology

The Property is situated in the Whittier Area of the Central Groundwater Basin. The Whittier Area is overlain by the La Habra Piedmont Slope and part of the Santa Fe Springs Plain and Coyote Hills. The known water-bearing sediments, extending to a depth of about 1,000 feet (800 feet below sea level), include recent alluvium and the Lakewood and San Pedro Formations. A part of the Pliocene and older deposits may also contain water of good quality. Electric logs of oil wells indicate fresh water at a greater depth than has been penetrated by water wells.

A groundwater elevation map was produced during the RI in November 1988 (*in* USEPA, 1993, Figure 1-4) that shows the elevation of groundwater beneath the Property (see **Figure 3-1** this work plan). The direction of groundwater flow is generally southwesterly. The groundwater hydraulic gradient is 1:500 or 0.2 percent. The velocity of groundwater flow has been estimated to range from 6-60 ft/yr. The hydraulic conductivities for sandy clay soil and sandy soils at the site are 50- and 500 gpd/ft², respectively. It has not been established that the aquifers in the Lakewood formation (the groundwater immediately below the site) are hydraulically connected with the aquifers in the deeper San Pedro Formation. Early researchers (Department of Water Resources, 1961) concluded, however, that in the vicinity of the Property, the Lakewood and San Pedro Formations may be hydraulically connected. The large number of oil wells in the area and the presence of multi-perforated groundwater wells may also act as artificial conduits of liquids between aquifers. Data collected to date have neither confirmed nor denied the interconnection of aquifers in the vicinity of the Property. Drinking water is not taken from the shallowest aquifer under the Property, but from deeper aquifers. Approximately fifty percent of the drinking water for the city of Santa Fe Springs is taken from five wells (perforated in the Lynwood, Sunnyside, and Silverado aquifers) in the San Pedro formation in the vicinity of the Property. Four of these wells are located within three miles of the site. The closest well is located approximately 1.5 miles northwest of the site. The well that most closely represents a down-gradient supply well is approximately 3 miles southeast and is perforated in the Sunnyside and Silverado aquifers, at a depth of 760 feet. This well was previously screened in the shallower Lynwood aquifer, too, but that screen was fouled by hydrogen sulfide contamination, which is not related to the Property. The remaining 50% of Santa Fe Springs' drinking water supply is purchased from the Metropolitan Water District. Groundwater from the city wells and water purchased from the Metropolitan Water District is fed directly into a piping network, blended, and distributed to 4,200 residential and industrial connections.

Groundwater beneath the site is 45- to 50 feet bgs, or about 105 feet above msl. This is approximately 30 feet below the bottom of the primary sump on the property. The groundwater gradient becomes much steeper to the south, towards the Greenleaf/Los Nietos intersection.

3.0 RESULTS OF PREVIOUS FIELD INVESTIGATIONS

Moore & Taber conducted a Foundation Investigation in 1981 for a proposed commercial/industrial park to be located on approximately 4.8 acres of land at the northeast corner of Greenleaf Avenue and Los Nietos Road for Castille Builders, Ltd. (Moore and Taber 1981). This site is adjacent to and south of the WDI site. The results of this investigation (ibid, Figure 3-1) indicate that loose fill, approximately 1- to 5 feet deep, covers the majority of this site. This fill is described as silty sand and clayey silt with intermixed trash and debris. The sumps on the WDI site are reported to be ten- to fifteen feet deep and contain debris mixed with bentonite. The alluvial deposits underlying the fill are described as interbedded, moderately dense- to dense, fine- to medium-grained silty sand, and soft- to very soft clayey and sandy silt. This material is reported to a depth of 16 feet below ground surface (bgs).

During May 1986, Dames and Moore (1986a) installed four vapor probes on the property to a depth of 5 feet (see **Figure 3-1** for locations). Total organic vapor concentrations within the soil gas were measured by extracting gas from the soil through the probe with a vacuum pump and analyzing it with an OVA and an NGI. Dames and Moore also drilled 6 soil borings on the Property (see **Figure 3-1** for locations). Three of these borings (DM-1, -2, -3, and -4) were drilled in areas where drilling mud was previously encountered in the shallow subsurface. Borings DM-5 and -6 were drilled adjacent to the WDI site soil cap in order to evaluate whether hazardous chemical compounds have migrated across the property boundary.

Samples were collected at approximately 2.5-foot Intervals and borings were completed to depths ranging from 16.5- to 21.5 feet. Five soil samples were retained for analysis of Title 22, California Code of Regulations (CCR) metals. U.S. EPA priority pollutant organics (Methods 8240 and 8270), and pH. Samples yielding high OVA readings were analyzed (see **Table 3-3**).

On June 25, 1986, Dames and Moore (1986b) installed three shallow (5- to 6 feet deep) soil vapor probes (see **Figure 3-1** for locations) and performed 21 CPT (cone penetrometer test) soundings at the Property (see **Figure 3-2** for locations). The purpose of this work was to: (1) better estimate the extent of

sumps and associated soft material at the site, and (2) utilize shallow vapor probes to assess the nature and concentration of organic vapors in the soils beneath the site.

Each of the CPT soundings was plotted and interpreted. A sump was identified (**Figure 3-2**, this report; Dames and Moore 1986a). The total volume of material in this sump was estimated to be between 10,000- and 16,000 cubic yards.

Shallow soil vapor probes were monitored with an OVA and an NGI. A gas sample was collected from each of the vapor probes for chemical analysis.

On December 8, 1987 four samples were collected from the Property by John I. Hunter & Associates, Inc. (Campbell #1 through Campbell #4, Hunter, 1988). Campbell #1 was a composite from three locations west of a Quonset hut located at 9925 Greenleaf Avenue. Two samples (Campbell #2 and -#3) were collected by hand-auger from 6 inches below the bottom of two pits near the southwest corner of a Quonset hut located at 9925-1/2 Greenleaf Avenue. One of these samples was collected from under a 3-foot-deep pit (so it was 3.5 feet bgs). Another was collected from under a 1-foot-deep pit (so it was 1.5 feet bgs). Campbell #4 was collected by hand-auger at a depth of 1 foot from a location which was 2 feet downstream and directly under a break in the industrial waste interceptor (sewer lateral) for the Quonset hut at 9925-1/2 Greenleaf Avenue. Samples were collected following the unauthorized discharge of plating solutions to the ground from this facility (Hunter, 1988). These soil samples were collected from the middle-western edge of the Property in a portion of the site not underlain by the EPA-selected remedy.

All samples were analyzed for priority pollutant metals (using inductively coupled plasma emission (ICP)), nitrate (using EPA method 300.6), and pH (using EPA method 9040).

The results of Dames and Moore's laboratory analyses (1986a) are shown in **Table 3-1**. Moderate levels of naphthalene, di-n-butyl phthalate and 2-methylnaphthalene were found in DM-1 at a depth of 6.0 feet. Boring DM-2 contained moderate- to high concentrations of naphthalene. Fluorine, phenanthrene, and 2-methylnaphthalene at a depth of 8.5 and 11 feet bgs. Ethylbenzene was found at 8.5 feet but not at 11 feet. Di-n-butyl phthalate, isophorene, and chrysene were found at 11 feet but not at 8.5 feet. Boring DM-3 contained relatively high concentrations of naphthalene, fluorene, Phenanthrene, and 2-methylnaphthalene at a depth of 16 feet. Detectable concentrations of di-n-butyl phthalate were found at a depth of 3.5 feet in Boring DM-4. The pH of soil samples was found to be between 7.9 and 8.4. All metal concentrations were

reported to be below the total threshold limit concentration (TTLC) and all but three metal concentrations were reported below the soluble threshold limit concentration (STLC), but the exact value of these concentrations was not been reported.

Analysis of gas samples by Dames and Moore (1986b, **Table 3-2** this report) indicates 9,500 ppm of methane at a depth of 6 feet in VP-1, no detectable concentration of gas in VP-2, and 11,200 ppm of methane, and 29 ppm of total non-methane hydrocarbon as hexane at a depth of 6 feet in VP-3. Dames and Moore believe the vapors in VP-1 may be the result of lateral migration through the subsurface from the WDI site and that the vapors in VP-3 originate in the subsurface of the Property (Dames and Moore 1986b).

Interpretation of Dames and Moore's CPT soundings shows the presence of very soft sump materials, possibly including desiccated mud and loose fill. Two approximations for the horizontal extent of the very soft material are shown on **Figure 3-2** (after Dames and Moore, 1986). The inner zone, containing very soft material, has approximate dimensions of 100 feet by 175 feet with an average thickness of 10 feet. Very soft material was encountered as deep as 18 feet. Including the overburden, the volume of the inner zone would be on the order of 10,000- to 12,000 cubic yards. Assuming that the outer zone represents the margin of the sump, with generally shallower depths of sump material, the additional volume is expected to be on the order of 2,000- to 4,000 cubic yards.

The results of John L. Hunter and Associates' laboratory analyses (Hunter 1988) are shown in **Table 3-4**. The concentrations of metals for all samples are below the TTLC. The exception is sample number one which exceeds the TTLC for nickel. The STLC is exceeded for: chromium and nickel (samples 1, -2, and -4); copper, zinc, and arsenic (sample 1); and cadmium and lead (all samples). However, a Waste Extraction Test (WET) was not performed. The concentration of nitrate varied from 9- to 3,990 ppm although sample number 2 contained no detectable concentration of nitrate. The pH of samples varied from 5.6 to 7.9.

The results of the RI (USEPA, 1993) are shown in **Table 3-5**. The results listed on the table are those soil boring locations on the Property (SB-70, -71, -78, -79, -89, -90, -91, -98, and -103) for which at least one metallic species exceeded the proposed regulatory goal (PRG). Soil borings SB-99 and -100 on the Property were also drilled during the RI but none of the soil samples had concentrations of CAM metals that exceeded the PRG.

4.0 FIELD ACTIVITIES

4.1 *Soil Sampling*

Nine (9) soil boring locations were drilled to a total depth (TD) each of 20 feet bgs (see **Figure 3-2** for locations). The RCRA remedy cap was not penetrated. **Figure 3-3** shows the relationship between the RCRA remedy beneath Parcel 49 and the boring locations. The borings were drilled with a truck-mounted direct-push technology (DPT) drilling rig using 2-inch diameter, stainless steel rods. A standard operating procedure (SOP) for DPT drilling is included as **Appendix A**. Soil borings cuttings were not produced. A soil sample was collected at 5-feet bgs and every five foot of depth below that to TD at each boring location. A Macro Core™ sampler was used to collect continuous soil cores in 4-foot-long by two-inch-diameter acrylic sleeves. Six-inch long sections of the sleeves were cut out at the appropriate depths using a hacksaw. The sample sections were sealed with Teflon™ tape and plastic caps and labeled with the depth, sample time, and an arrow showing the “down” direction. Each of these soil samples was placed immediately in a container cooled to 4°C by ice prior to delivery to a CA-certified laboratory at the end of the work day. Standard chain-of-custody (COC) protocols will be followed. They were analyzed for USEPA priority pollutants (USEPA Method 8260B). A second sample sleeve was prepared in the same manner as the first and analyzed for Title 22 metals. If the concentration of any metallic species in any soil sample exceeded the total threshold limit (TTLC) for hazardous waste in soil, a waste extraction test (WET) was planned be performed at the lab to determine if 10 times the soluble threshold limit concentration (STLC) has been exceeded (which would classify it as “hazardous”). The remaining portion of each sleeve was used for lithologic description by visual/manual methods (ASTM D 2488). Boring logs for all nine borings are included in **Appendix C** of this report. A duplicate soil sample was collected at a rate of one for every twenty soil samples collected (total of 1 sample) for quality assurance/quality control (QA/QC).

A site-specific Health and Safety Plan (HASP), compliant with the requirements of 29 CFR Part 1910.120, 8 CCR 5192, and the EPA Standard Operating Safety Guides for Hazardous Waste Operations (1986) was prepared (**Appendix B**). Based on the conditions of the site, the expected levels of constituents present in the soil, and the type of work performed, all activities were conducted in Level D Personal Protective Equipment (PPE). The HASP provided the requisite details and guidance. All employees involved in field work at this site previously completed the required 40 hours initial training, had maintained qualification through annual refresher training, are under a program of medical monitoring,

and are certified to wear respiratory protection, as specified in 29 CFR part 1910.134 and 8 CCR 5144.

4.2 *Soil Vapor Sampling for Methane*

The concentration of methane gas was planned to be quantified by the use of a flame ionization detector (FID) calibrated for hexane. A photo ionization detector (PID) was to be used in conjunction with the FID to detect and quantify the presence of other gases. Every soil sampling depth was to be monitored by the two detectors. Unfortunately the TBA 1000 combination detector malfunctioned and a replacement could not be found. Consequently, at three locations and depths, a soil vapor sample was collected in a SUMMA canister and analyzed at an offsite CA-certified laboratory for the T0-15 analyte list.

5.0 RESULTS AND CONCLUSIONS

The soils encountered during drilling consist largely of coarse- to fine silt of varying shades of brown color. The generally chaotic nature of the soil samples described in the boring logs (**Appendix C**) suggests that they are very likely fill material. Natural-looking parting surfaces were observed in only two borings: 32309-1 and -3 at 10 feet bgs in both. As a rule, these silts are highly mottled with yellow/brown- to gray/black oxidation, contain varying amounts of clay and/or sand, and may- or may not contain caliche blebs. A brown- to red/brown, arkosic, well-sorted sand that occurs at the base (20 feet bgs) of borings 32309-7, -8, and -9 may be native. The evidence for this is its similarity and correlativity from boring to boring. Conversely, the evidence for fill material being present in these same three borings is strong: brick fragments, wood chips, oily soil, and odor from the surface down to 10 feet bgs.

Concentrations of priority pollutants (VOCs by USEPA Method 8260B) in all soil samples analyzed were below detection levels, with the exception of borings 32309-2 (ethanol at a concentration of 1,960 µg/kg or parts per billion at 10 feet bgs) and 32309-9-10 (10 feet bgs). The compounds detected in 32309-10 are listed below. These are common compounds not unexpected in an oilfield-related landfill environment. The fact that they have been detected only at one location and only at one depth suggests burial in a landfill.

32309-9-10 (feet bgs)	concentration (µg/kg)
Isopropylbenzene	379
n-Propylbenzene	358
Sec-Butylbenzene	670
Naphthalene	1,920

The concentrations of Cam Metals in all soil samples analyzed were within the limits for background concentrations of these compounds in Southern California, with the possible exception of samples 32309-7-5 (5 feet bgs) for lead (3,870 mg/kg or parts per million) and 32309-7-10 (10 feet bgs) for barium (1,860 mg/kg). Boring location 32309-7 is located just south of a (former) building slab (**Figure 3-2**) and the drilling encountered debris that included bricks and wood fragments (see the boring log for 32309-7, **Appendix C**). An oily odor was encountered at both depths during drilling. The TTLC for barium in soil is 10,000 mg/kg so no WET test was performed on sample 32309-7-10. Even though the TTLC for lead in soil is 1,000 mg/kg, no WET test was performed on sample 32309-7-5 for two reasons: (1) the high concentration of lead is isolated to just the 5-foot bgs sample at this one location, and (2) the Site will be regraded and the debris at this location will be removed at a future time.

Traces of acetone, tetrachloroethene (PCE), and toluene were the only compounds common to all three soil vapor samples collected in SUMMA canisters from the Property (soil vapor results are included as **Appendix D**). These compounds were detected at concentrations less than 1 microgram per liter (less than one part in a billion by volume). Other compounds (but not all) detected at trace levels in one or more soil vapor samples include benzene, 2-butanone (MEK), ethanol, ethyl benzene, heptane, and xylenes. No methane was detected.

No impacted soil of any consequence was encountered in this limited Phase 2 Site Investigation. Brick fragments and wood chips were encountered in one boring closest to the USEPA-approved RCRA cap (32309-7). Three borings (32309-7, -8, and -9) were found to have odorous, oily soils in them. The Site will have to be re-graded to at least 10 feet below current grade and impacted soils removed prior to any construction. It is CSI's opinion, based upon the data collected during this investigation, that the soils to be removed are not hazardous and can be deposited in a landfill that accepts construction debris.

6.0 DISCLAIMER

This limited Phase 2 Site Investigation has been conducted and prepared in accordance with generally accepted practices and procedures exercised by reputable professionals under similar circumstances. CSI makes no other warranties or guarantees, either expressed or implied, as to the findings, opinions, or recommendations contained in this report. The findings of this investigation are intended exclusively for the use of the Client or his designated agents, successors, affiliates, or assigns. Any re-use of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of the user.

This limited site investigation is intended to assess the impact of historical operations on areas of the Property not underlain by a USEPA-approved RCRA Subtitle D-equivalent capping system. Given the limited scope of the project, currently unrecognized impacts to soil or groundwater may exist beneath the Property. Regulatory approval of the boring locations was sought and given prior to any field work being completed. Representatives from both the Army Corps of Engineers and Project Navigator (as an agent for WDGI) were present during field work and contributed in determining the final locations of the borings.

7.0 REFERENCES

Dames and Moore, 1986a, *Draft Summary of Findings Field Investigation Campbell Property, Greenleaf Avenue and Los Nietos Road, Santa Fe Springs, California*, Dames and Moore Job No. 13262-011-42, May 20.

Dames and Moore, 1986b, *Report Cone Penetrometer Survey, Shallow Vapor Survey Campbell Property, Greenleaf Avenue and Los Nietos Road, Santa Fe Springs, California*, Dames and Moore Job No. 13262-014-42, May 20.

Ebasco, 1989, *Final Characterization Report Waste Disposal Group, Inc., Santa Fe Springs, CA*, May.

EPA, Region IX, 1993a, *Feasibility Study Report for Soils and Subsurface Gas Waste Disposal Group, Inc. Superfund Site, Santa Fe Springs, California*, August 2.

EPA, Region IX, 1993b, *Record of Decision (ROD) - Soils and Subsurface Gas Operable Unit*, December 22, 1993.

EPA, Region IX, 2002. *Amended Record of Decision (AROD) - Soils and Subsurface Gas Operable Unit*, June 2002.

EPA, 2003, *Consent Decree: USA vs. Archer Daniels Midland et al.*

Hunter, John L. 1988. Letter to Richard Gillaspy, Los Angeles County Department of Health Services, regarding Soil Sampling at the Campbell Property, Corner of Greenleaf Avenue and Los Nietos Road, Santa Fe Springs, January 15.

Project Navigator, Ltd. (PNL). 2003. *Final Community Relations Participation Plan, Waste Disposal, Inc. Superfund Site*. September 23, 2003.

Remedial Construction, Services, L.P. (RECON)/TRC Project Team, 2004, *Final Health and Safety Plan, Waste Disposal, Inc. Superfund Site*, January 28, 2004.

Skinner Consulting, LLC, 2005, *Institutional Controls Monitoring and Enforcement Work Plan (ICMEWP), Revision 1, Waste Disposal, Inc. Superfund Site*, November 28, 2005.

TRC, 2000, *Draft TM No. 13 Reservoir Liquids Removal Closeout Report and Addendum No. 1 Comprehensive Ground Water Quarterly Monitoring Plan (Revision 2.0)*, Waste Disposal, Inc. Superfund Site, August 2000.

TRC, 2001a, *Remedial Design Investigative Activities Summary Report (Revision 2.0) Volumes I and II*, Waste Disposal, Inc. Superfund Site, May 2001.

TRC, 2001b, *Supplemental Feasibility Study (Revision 4.0)*, Waste Disposal, Inc. Superfund Site, March 2001.

TRC, 2001c, *Final Supplemental Subsurface Investigation RD Investigative Activities*, Waste Disposal, Inc. Superfund Site, February 2001.

TRC, 2002, *2000 Annual Monitoring Report, Waste Disposal, Inc. Superfund Site*, February 2002.

TRC, 2003a, *2001-2002 Annual Monitoring Report, Waste Disposal, Inc. Superfund Site*, April 2003.

TRC, 2003b, *Final (100%) Design Report Soils, Subsurface Gas and Ground Water Remedial Design*, Waste Disposal, Inc. Superfund Site, May 2003.

TRC, 2004a, *Final Remedial Action Work plan (RA WP)*, Waste Disposal, Inc. Superfund Site, March 2004.

TRC, 2004b, *Final Construction Quality Assurance Plan (CQAP)*. Waste Disposal, Inc. Superfund Site, January 2004.

TRC, 2004c, *Quality Assurance Project Plan (QAPP)*. Waste Disposal, Inc. Superfund Site, January 2004.

TRC, 2004d, *Sampling and Analysis Plan (SAP)*, Waste Disposal, Inc. Superfund Site, January 2004.

TRC, 2005a, *2003 Annual Monitoring Report*, Waste Disposal, Inc. Superfund Site, March 2005.

TRC, 2005b, *Final Draft Operations, Monitoring and Maintenance Plan (OMMP)*, Waste Disposal, Inc. Superfund Site, July 2005.

TRC, 2005c, *Final Compliance Testing Plan (CTP)*, Waste Disposal, Inc. Superfund Site, November 2005.

TRC, 2006a, *Site Specific Health & Safety Plan - Operations, Maintenance and Monitoring Activities*, Waste Disposal, Inc. Superfund Site, February 2006.

TRC, 2006b, *Draft Compliance, Testing Report (CTR)*, Waste Disposal, Inc. Superfund Site, April 2006.

TRC, 2006, *RA Completion Report and As-Built Report (combined)*, Vols. I and II, June 1 and September 14, respectively,

WDI, 2006, *Final RA Report*, July.

FIGURES

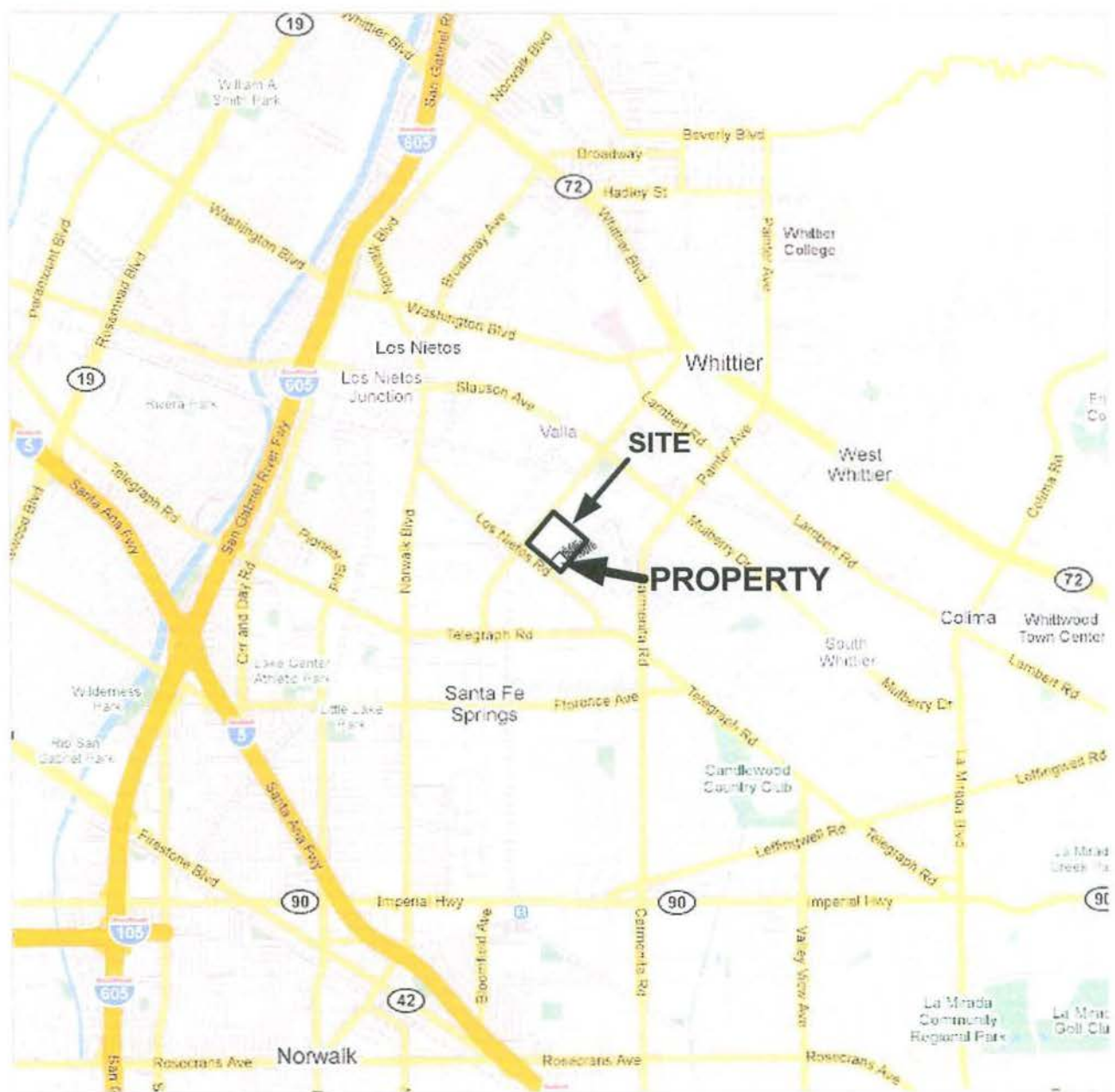


FIGURE 1-1
SITE AND PROPERTY
LOCATION MAP
9951 Greenleaf Ave.
Santa Fe Springs, CA 90670

Parcel No. 00000002

- 3 Raymond & Dennis Holbrook Trust
- 4 Dis-Lop Company
- 7 Eugene and Geraldine Weiler Trust
- 11 Albert C.R. & Betty Leung
- 12 Albert C.R. & Betty Leung
- 21 Lucia F. Farris Living Trust
- 24 John I. Magda Family Partnership
- 25 Raymond & Dennis Holbrook Trust
- 26 Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Addeline R. Bennett, M.D. Living Trust
- 28 Steven W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Addeline R. Bennett, M.D. Living Trust
- 29 Thomas J. Menzies, Irene L. Menzies Trust
- 30 Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Addeline R. Bennett, M.D. Living Trust
- 32 David Joseph Hopkins Family Trust
- 37 Luis Graziano, Trustee of Trust "N" of the Graziano Trust as created March 4, 1982
- 41 Luis Graziano, Trustee of Trust "B" of the Graziano Trust as created March 4, 1982, Joella L. Ortega
- 42 Eugene and Geraldine Weiler Trust
- 43 Danny R. Peoples & Dana Peoples
- 44 Eddie Earl Timmons
- 48 Simeron Family Trust
- 49 Phil Campbell & Diana Cots Family Trust, Owen Campbell Brothers Machine & Tool, Inc.
- 50 Marvin W. Pitts and Cecilia Pitts, trustees under Declaration of Trust, dated February 1, 1982 (Pitts Family Trust), Addeline R. Bennett, M.D. Living Trust
- 51 Addeline R. Bennett, M.D. Living Trust

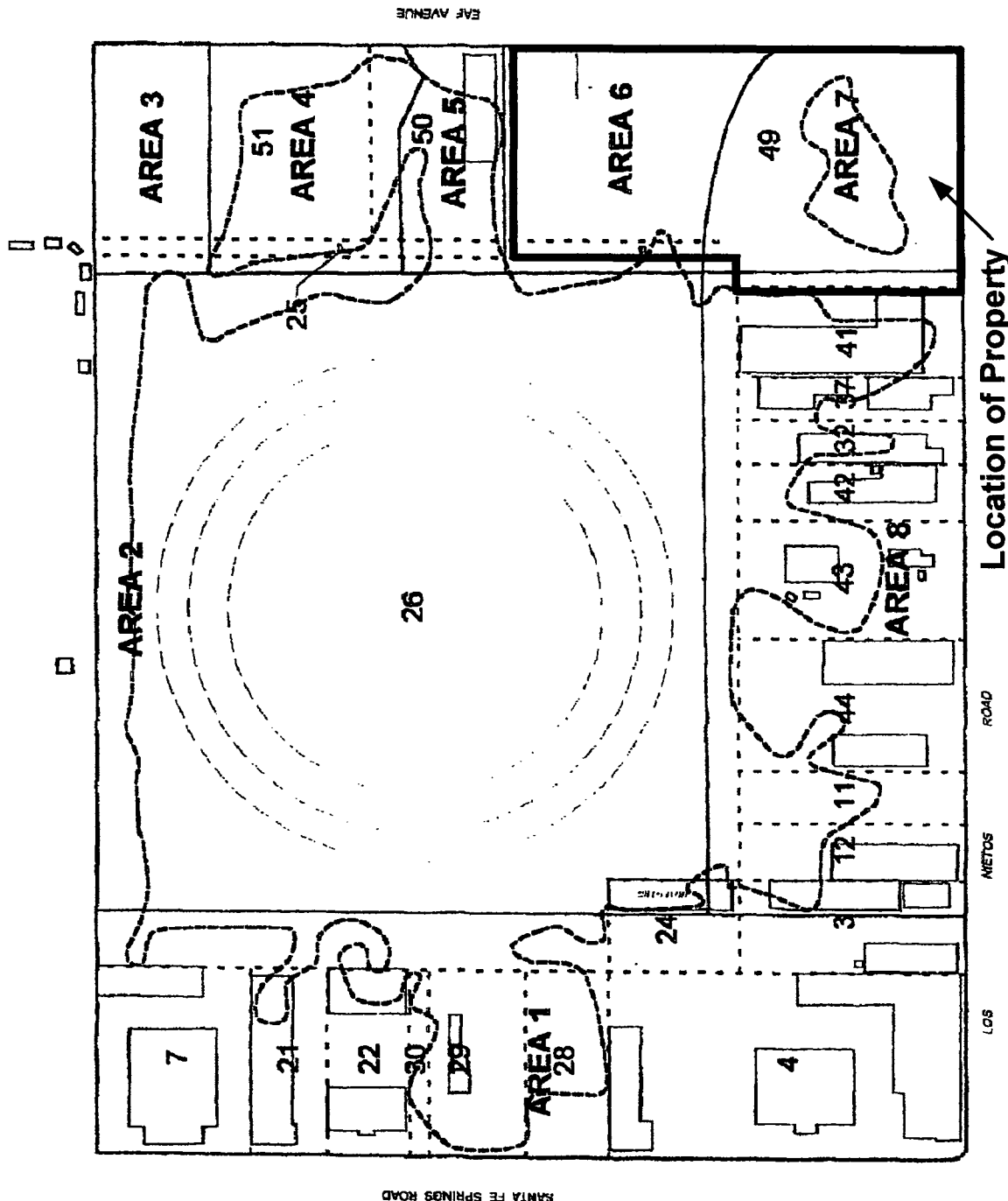
LEGEND

- SITE BOUNDARY
- AREA BOUNDARY
- PARCEL BOUNDARY
- PARCEL NUMBER
- LIMIT OF WASTE
- EXISTING BUILDING

REFERENCE: NUNEZ ENGINEERING, SURVEY DRAWING NE 87167, OCT. 31, 1987.



FIGURE 1-2
Parcel and Area Map



Location of Property

Adapted from TRC 2006 Figure 1.2

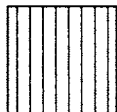


Direction of
Groundwater
Flow

EXPLANATION

- BORING WHICH ENCOUNTERED SUMP MATERIAL
- BORING WHICH DID NOT ENCOUNTER SUMP MATERIAL
- CPT SOUNDING SUGGESTIVE OF VERY SOFT SUMP MATERIAL
- ▣ CPT SOUNDING SUGGESTIVE OF DESICCATED SUMP MATERIAL
- CPT SOUNDING SUGGESTIVE OF ABSENCE OF SUMP MATERIAL

APPROXIMATE
AREA OF
SUMP



AREA OF RCRA
D-EQUIVALENT
CAP



APPROXIMATE
LOCATION OF
BUILDING SLAB



0 80 100
SCALE IN FEET

32309-1

SOIL BORING
LOCATION

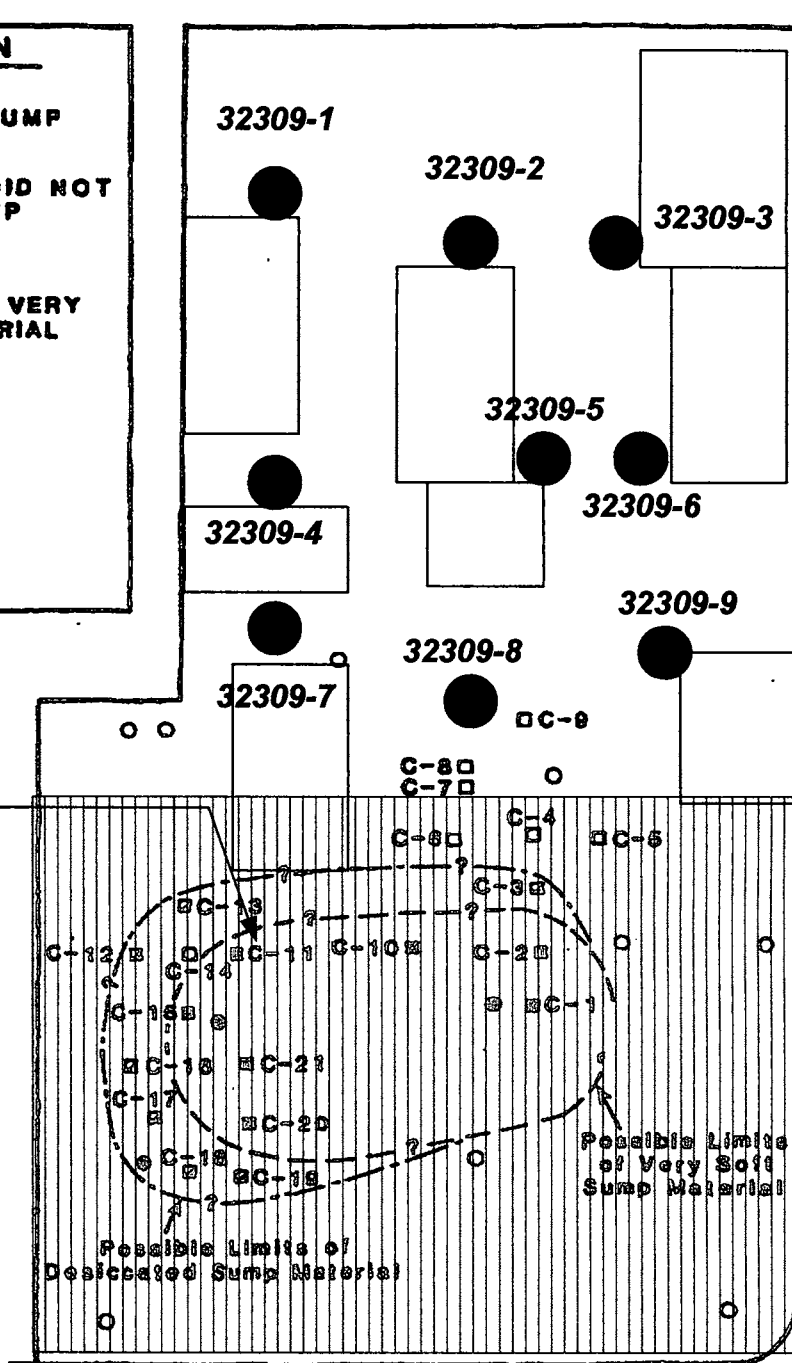
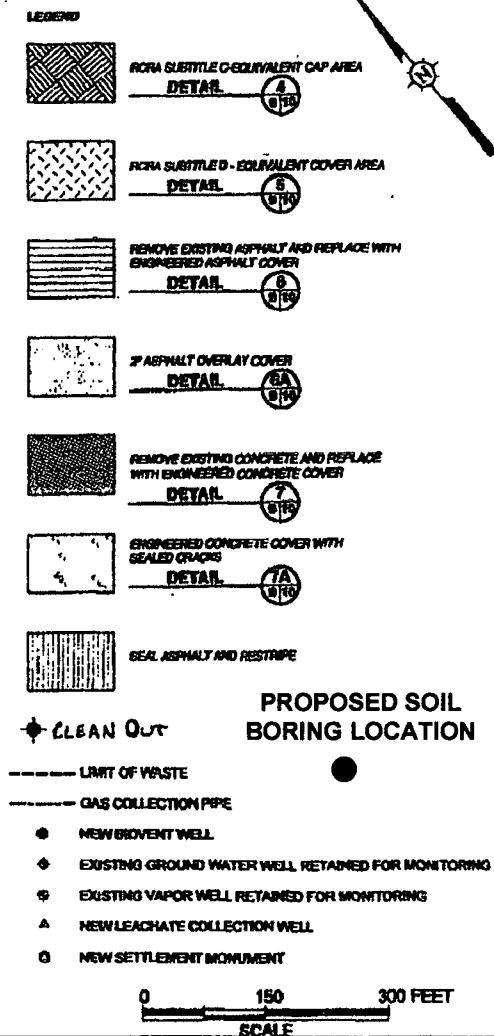


FIGURE 3-2
DPT DRILLING LOCATIONS AT
GREENLEAF PROPERTY

SOURCE: Adapted from Dames & Moore (1986).



LEARNING



PROPOSED SOIL BORING LOCATION

— LIMIT OF WASTE

- GAS COLLECTION PIPE

- ◆ NEW BIDWENT WELL
- ◆ EXISTING GROUND WATER WELL, RETAINED FOR MONITORING
- ◆ EXISTING VAPOR WELL RETAINED FOR MONITORING
- ▲ NEW LEACHATE COLLECTION WELL
- NEW SETTLEMENT MONUMENT

A horizontal scale bar with markings at 0, 150, and 300 FEET. The word "SCALE" is centered below the bar.

TABLES

**TABLE 3-1 Semi-volatile and non-Priority Pollutant Concentrations
at the Property, Santa Fe Springs, CA
(after Dames and Moore (1986a))**

Constituents	DM-1 6 ft	DM-2 8.5 ft	DM-2 11 ft	DM-3 16 ft	DM-4 3.5 ft
Naphthalene	200	21,000	16,000	40,000	ND
Di-n-butyl phthalate	2,300	ND	1,300	ND	390
Fluorene	ND	35,000	5,200	12,000	ND
Phenanthrene	ND	48,000	6,700	15,000	ND
Isophorone	ND	ND	4,700	ND	ND
Chrysene	ND	ND	2,200	ND	ND
2 Methyl Naphthalene	140	430,000	48,000	78,000	ND
Toluene	250	ND	NA	NA	NA
Ethylbenzene	ND	7,500	NA	NA	NA

ND – Not Detected NA – Not Analyzed for
All samples were soil samples
All values are in parts per billion (ppb)

**TABLE 3-2 Methane and Other Hydrocarbon Concentrations
at the Campbell Property, Santa Fe Springs, CA
(adapted from Dames and Moore (1986b))**

Sample Number	Sample Type	Sample Depth (ft)	Methane (ppm)	Total Non- methane Hydrocarbons (ppm)
VP-1	Vapor	6	9,500	ND
VP-2	Vapor	6	ND	ND
VP-3	Vapor	6	11,200	29

ND – Not Detected

**TABLE 3-3 Methane and Other Hydrocarbon Concentrations
at the Property, Santa Fe Springs, CA
(after Dames and Moore (1986a))**

Constituents	DM-1 6 ft	DM-2 8.5 ft	DM-2 11 ft	DM-3 16 ft	DM-4 3.5
Methane	200	21,000	16,000	40,000	ND
Total Non-methane Hydrocarbons	2,300	ND	1,300	ND	390

ND – Not Detected

All samples were soil vapor samples

All values are in parts per million by volume (ppmv)

**TABLE 3-4 Inorganic Constituent Concentrations
at the Property, Santa Fe Springs, CA
(after Hunter, 1988)**

Constituents	Campbell #1 (3 composited surface samples)	Campbell #2 (0.5 ft)	Campbell #3 (0.5 ft)	Campbell #4 (1 ft)
Beryllium	0.29	0.69	0.52	0.49
Chromium	459 ^a	30 ^a	26 ^a	89 ^a
Nickel	2,340 ^b	78 ^c	18	48 ^e
Copper	1,300 ^c	43 ^c	28 ^c	350 ^c
Zinc	2,560 ^c	1,200 ^c	574 ^c	4,920 ^c
Arsenic	7 ^c	4	3.1	4.1
Selenium	ND<3	ND<3	ND<3	ND<3
Silver	0.44	0.1	0.25	1
Cadmium	12 ^c	2.9 ^c	1.3 ^c	7.9 ^c
Antimony	6.1	0.78	0.87	1.1
Mercury	0.1	ND<0.08	ND<0.08	ND<0.08
Thallium	0.09	0.13	0.15	0.12
Lead	654 ^c	7.5 ^c	399 ^c	71 ^c
Nitrate	3,990	ND	26	9
pH	7.2	5.6	7.2	7.9

ND – Not Detected

^a Exceeds CA Department of Health Services (DHS) STLC limits for Chromium (VI) compounds

^b Exceeds CA DHS TTLC limits

^c Exceeds CA DHS STLC limits

All values are in milligrams per kilogram (parts per million)

**TABLE 3-5 Inorganic Constituent Concentrations that
Exceed the PRGs at the Property,
Santa Fe Springs, CA (after USEPA, 1993)**

Constituents Sample Location (ft bgs)	Arsenic (0.97 ppm)*	Beryllium (0.41 ppm)	Benzo(a) pyrene (0.230 ppm)	Chromium (44 ppm)	PCBs (0.22 ppm)	Thallium (5.5 ppm)
SB-70 – 30	5.3					
SB-71 – 10	6.4					
SB-71 - 20	3.5					
SB-78 – 10	12.1					
SB-79 – surf					1,700	
SB-79 – 35	5.5					11.2
SB-89 – 5	5.1	0.97				
SB-89 – 10	13.3	1.1		49.20		
SB-89 – 20	3.7					
SB-89 – 25	7.2	1.2				
SB-89 – 35	3.5	1.0				
SB-89 - 35	7.4					
SB-90 – 5	4.4		0.960	55.8		13.1
SB91 - surf	3.0	0.84				
SB-98 - 10	3.7	0.72				
SB-98 - 20	18.6	0.77				
SB-98–20 dupe	2.8	0.79				
SB-98 - 30	5.3					
SB-98 - 40	2.9					
SB-103 - surf	6.3				3.2	15.0
SB-103 - 5	7.4	1.4				
SB-103 - 10	7.57	0.53				15.4
SB-103 - 15	4.79					12.6
SB-103 - 35	6.19					21.3
SB-103 - 40	1.94					14.8

* – PRG

All values are in milligrams per kilogram (parts per million)

APPENDIX A

DPT DRILLING AND SAMPLING STANDARD OPERATING PROCEDURE

CSI DIRECT-PUSH SAMPLING TECHNOLOGY STANDARD OPERATING PROCEDURE (SOP)

Introduction

Direct-push drilling rigs may be truck/van mounted, track-mounted, or mounted on limited access platforms (electric carts, ATVs), etc. DPT rigs depend upon the static weight of whatever they are mounted on to push/hammer pipe into the ground. Some cart or hand-truck-mounted push rigs are bolted to the ground or floor to increase their depth rating. The total depth (TD) attainable by push rigs is dependent upon many factors, not the least of which is the grain size of the soil being penetrated. Gravel, pebbles, and cobbles generally result in "refusal". Ironically, very fine dry silt-sized sand particles (called "desert flour") will often result in "refusal". The size of the hammer (measured in foot-pounds) has an effect upon drilling depth, with the larger hammer resulting in a greater the depth of penetration (generally). Hammer power ranges of 90-, 150-, 250-, and 450-foot-pounds are common. The arrangement of the hydraulic rams (the ones that move the hammer up and down and pull the pipe out of the ground) is critical to depth rating. Hydraulic rams push better than they pull. On some rigs the rams are built upside down so that their pull power is greater than their push power. The pullback force to extract the pipe from the ground can exceed 30,000 foot-pounds.

DPT rigs typically push a hollow steel rod 1 7/8-inches in outer-diameter (called "A-rod") with a hydraulic oil-actuated hammer. Hydraulic hammer systems are capable of directional drilling into the subsurface at up to 37.5 degrees. Hand-held systems are capable of horizontal drilling. Most truck- or cart-mounted systems utilize standard 48-inch-long (4 feet) pipe and/or tools. Hydraulic hammer systems mounted on hollow-stem auger rigs are capable of advancing longer tools into the subsurface. Some hollow-stem systems have up to a 12-foot-long stroke. Soil samplers are of two types: California modified split barrel or solid barrel. Both types of samplers employ a drive tip that slides freely inside the sampling barrel. A rod is welded onto the back of the drive tip. It too slides freely inside the sampling barrel. The length of the rod is such that a stop pin may be screwed into the back of the sampler to keep the drive tip and rod from sliding up the sampler as it is driven into the subsurface. When the desired sampling interval is reached, the stop pin is retrieved from the back of the sampler (via 1/2-inch aluminum rods), which allows the drive tip to retract into the sampler as the sampler is driven downward a minimum of 18 inches. The result is a sampler (hopefully) filled with soil. The filled sampler is then retrieved by pulling up the drill string of A-rods (called "tripping out").

Soil Vapor Sampling

Soil vapor sampling systems range from simple to complex. Simple, real time measurements with a photoionization detector (PID) are acquired by driving a steel rod into the ground with a roto-hammer. The bottom of the rod is perforated to allow soil vapor to enter the pipe. A PID is attached to the pipe via Teflon® tubing and a reading is taken. The pipe is pulled from the ground with an automobile bumper jack. This type of soil vapor sampling is common at landfills. At sites where deeper samples are required or multiple depths are needed, some version of a proprietary system developed by Geoprobe® is employed. This system has a retractable screen located behind the drive tip. When the target depth is reached, the push rods are pulled up about 2 inches, exposing the screen to the subsurface. Teflon® tubing is threaded down the push rods. A special threaded fitting at the end of the tubing is screwed into the top of the screen. Samples are usually collected by syringe to submit to a mobile laboratory on site. Tedlar™ bags or Summa canisters are used when the sample is submitted to a fixed-base laboratory.

Groundwater Sampling

Groundwater sampling systems are divided into downhole and aboveground sampling systems. Downhole systems (e.g., the “BAT” system) collect groundwater samples in volatile organic analysis (VOA) containers at depth. Successful sampling depends upon groundwater head to fill up the containers. The inherent problem with this system is that the sample must be collected from two feet or more below the top of water to fill the container. Since all fuel hydrocarbons are lighter than water, there is a risk of not detecting floating hydrocarbons. A typical aboveground system includes a probe with a retractable screen that is pushed to the proper groundwater sampling zone and then pulled up to expose an inlet screen (much like the soil vapor sampling system). A small-diameter bailer or tubing with a foot valve can be lowered through the hollow push rods and body of the sampler to collect the sample. When the depth to water is 28-feet or less, a peristaltic pump may be used.

Preparation Duties:

Final direct push boring locations will be marked or staked in the field based upon phase-specific approved sampling locations, as directed by the Field Team Leader. Utility clearance will be requested for each drilling location to identify any subsurface utilities prior to drilling and sampling.

All drilling and sampling equipment will be decontaminated with a steam cleaner prior to drilling. This equipment includes push rods, samplers, brass sleeves, and related equipment. Probe tips are generally disposable. Steam cleaning may be conducted on the rig (containerized), or after placing equipment, tools, and non-packaged materials in tubs, on plastic, or otherwise out of contact with the ground.

surface. After steam cleaning is completed, cleaned equipment will be placed on plastic or otherwise segregated to prevent cross contamination until used. Borings will be located according to the site-specific work plan. No borings will be drilled within 5 feet of marked underground utility lines or within 10 feet of active overhead power lines. Boring locations will be adjusted, as necessary.

Soil/Soil-Gas/Groundwater Sampling Equipment

The following equipment may be used to conduct soil sampling, soil-vapor sampling, or groundwater sampling:

California split barrel or solid barrel soil samplers
Chemical resistant gloves
Appropriate personal protection equipment according to the HSP
Small-diameter Teflon® or flexible hose
Disposable/one-use probe points
Groundwater samplers
Sealable (generally Ziplock®) plastic bags
New polybuterate, brass, or stainless steel sample liners
Plastic end caps and Teflon® tape
Sample labels
Evidence Tape
Optional stainless steel putty knife, stainless steel bowl, spoon
Photoionization detector (PID)
Cooler and ice
Munsell™ color chart
Unified Soil Classification System (USCS) chart
Decontamination equipment
Level D or greater PPE

Direct Push Soil Sampling Procedures

- Prior to sampling on pavement or other sealed surfaces, a barrier (plastic, or a similar non-porous material) will be placed on the ground to prevent cross-contamination, and to facilitate site cleanup.
- Each borehole will be started by hydraulically hammering a 2-inch-diameter punch point through the surface covering. An 18- to 24-inch-long sampler, attached to a 4-foot length of 1 7/8-inch outside-diameter steel A-rod, will then be pushed/pounded into the ground. The borehole will be advanced in by adding 2- or 4-foot sections of flush-threaded drill rod to the drill string already in the ground to the appropriate depth for sampling. No lubricants or additives will be used while drilling soil borings.
- All sampling equipment will be decontaminated prior to use.

- All drilling personnel will read and sign the site HSP. All such personnel will wear appropriate PPE, as directed by the HSP. If drilling personnel are not properly equipped in compliance with the HSP, the driller will be released or replaced.
- An exclusion zone will be set up around the drill rig, support truck, and/or operating equipment, as defined by the Site HSP officer or appropriate field staff. The exclusion zone may or may not be physically marked, depending upon field conditions. In general, however, traffic cones and/or caution tape will be used to define the exclusion zone.
- A field log book will be kept and data recorded.
- A Soil Boring Log will be kept in the field. Sediment type, sediment size, sorting, lithology, moisture content, color (Munsell), and PID readings will be recorded. If not, soil samples will be collected at a minimum of 5-foot intervals if lithologic data are needed.
- The driller will manage all drill stem, PVC, and related equipment and supplies. Professional staff is to stay clear of the hammer location or any rotating equipment. The driller will be responsible for all drilling materials.
- For soil samples, the field geologist or scientist will remove and prepare the center sample sleeve sample for laboratory analysis; collect a sample of the lower sample shoe for field-screening with a PID; and will separate and record lithologic information from the remaining sample "undisturbed" materials according to USGS sample description criteria.
- Samples will be driven at intervals specified in the individual phase work plans
- Sample sleeves will be sealed so that there is little or no headspace between the sample and the Teflon® tape. Each sleeve will be labeled with the sample identification sealed with evidence tape and immediately placed in an iced cooler to maintain a temperature of 4°C. The remaining sample(s) will be used for soil classification. In the case of mobile-lab analysis, samples will be delivered immediately to the mobile laboratory following labeling and documentation.
- After attaining sample depth or refusal, total depth will be recorded, as will any details regarding saturated conditions or any other pertinent subsurface condition.
- Soil borings will be backfilled with bentonite chips. Borings that were drilled through asphalt or concrete will be patched to match existing conditions.
- Decontamination wash water (in small amounts) will be staged to labeled 55-gallon drums and properly disposed of. If stored for more than one-day, each drum label will contain the following information:
 - Site identification
 - Depth interval
 - Date drilled
 - Soil boring identification
 - Name of project manager

Direct Push Groundwater Sampling Procedures

Groundwater sampling will conform to the soil sampling methodology presented above, with the following exception:

- After unconfined groundwater (including perched water) has been encountered, the push rod will be advanced a minimum of 3-feet further to ensure adequate sample volume. In cases where thin-perched water zones are suspected, the push rod may be advanced a lesser distance. The well point may consist of either a dedicated water sample point, a three foot long stainless steel screen attached to Teflon or polyethylene tubing, a length of 0.5-inch PVC slotted screen, or a length of 3/8inch polyethylene tubing with perforations in the bottom 3 feet. New tubing and/or well screens will be used for each well point.
- To collect groundwater, either a bailer or a peristaltic pump will be utilized. The preferred sampling method utilizes the peristaltic pump.
- Groundwater samples collected for metals analysis will be filtered using inline filters attached to the outlet tubing of the peristaltic pump or with Nalgene™ hand pump filters.

After the site has been cleaned and restored as close to its original condition as possible, the direct push drill rig will be moved so that the plastic sheeting can be removed. Drill auger and other downhole equipment that could cause cross-contamination will be decontaminated with a steam cleaner prior to drilling and sampling the next soil boring.

APPENDIX B

Health and Safety Plan (HASP)

TABLE OF CONTENTS

1.0	GENERAL	1
1.1	SCOPE OF SAFETY PLAN	1
2.0	PROJECT DESCRIPTION	2
2.1	SITE BACKGROUND	2
2.2	WORK DESCRIPTION	2
2.3	29 CFR 1910.120(B)(4)(III) PRE-ENTRY MEETING.....	2
3.0	KEY PERSONNEL AND RESPONSIBILITIES	2
4.0	29 CFR 1910.120(B)(4)(II)(A) RISK ANALYSIS	4
4.1	HAZARDS EVALUATION	4
4.2	CHEMICAL HAZARDS.....	5
4.3	PHYSICAL HAZARDS	5
4.4	ACTION LEVELS.....	5
4.5	PROTECTION AGAINST PHYSICAL HAZARDS	6
4.6	HAZARD\ ANALYSIS SUMMARY	7
5.0	29 CFR 1910.120(B)(4)(II)(B) TRAINING REQUIREMENTS	8
6.0	29 CFR 1910.120(B)(4)(II)(C) PERSONAL PROTECTIVE EQUIPMENT	8
6.1	RESPIRATORY PROTECTION.....	9
7.0	29 CFR 1910.120(B)(4)(II)(D) MEDICAL MONITORING	9
8.0	29 CFR 1910.120(B)(4)(II)(E) AIR MONITORING.....	9
9.0	29 CFR 1910.120(B)(4)(II)(F) SITE CONTROL MEASURES	10
10.0	29 CFR 1910.120(B)(4)(II)(G) DECONTAMINATION PROCEDURES.....	10
10.1	PERSONAL PROTECTIVE EQUIPMENT.....	10
10.2	PERSONNEL.....	10
10.3	EQUIPMENT.....	11
10.4	DISPOSAL PROCEDURES.....	11
11.0	29 CFR 1910.120(B)(4)(II)(H) EMERGENCY PROCEDURES	11
11.1	INJURIES, EXPOSURES, OR ILLNESSES.....	11
11.2	EMERGENCY PHONE NUMBERS.....	12
11.3	GENERAL.....	12
11.4	EMERGENCY EQUIPMENT.....	13
12.0	29 CFR 1910.120.(B)(4)(II)(I) CONFINED SPACE ENTRY	13
13.0	29 CFR 1910.120(B)(4)(II)(J) SPILL CONTAINMENT.....	13
14.0	DOCUMENTATION	13
15.0	PROPOSITION 65	13
15.1	CARCINOGENS	13
15.2	WARNINGS.....	13
16.0	APPROVALS	14
16.1	CSI PERSONNEL	14
16.2	CONTRACTOR AND SUBCONTRACTOR PERSONNEL.....	14

1.0 GENERAL

This Site-Specific Health and Safety Plan (HASP) contains the requirements for health and safety for the field activities during a Phase 2 Site Investigation at 9951 Greenleaf Avenue, Santa Fe Springs, California (the "Property", **Figure 1, Site Location Map**).

Clean Soil, Inc. (CSI) has been retained to conduct a Phase 2 Site Investigation at the Property. All information in this document will be communicated to others engaged in the project. Contractors, subcontractors and others shall be responsible for reading this document, and for conducting their efforts in a safe and responsible manner.

1.1 Scope of Safety Plan

This site-specific health and safety plan is intended to meet the requirements of 29 CFR Part 1910.120, 8 CCR 5192, and the EPA Standard Operating Safety Guides for Hazardous Waste Operations (1986). In addition to the health and safety procedures and safeguards outlined in this HSP, all CSI personnel, contractor, and subcontractor employees (if any) shall follow all applicable federal, state, and local regulations. In the event of conflicting requirements, the procedures/practices that provide the highest degree of personnel protection shall be implemented. Any deviations from this HSP must be approved by CSI's Site Safety Officer (SSO).

If any work plan specifications change during or after the preparation of this HASP, or if site conditions differ as the result of more information, work will cease, and the SSO shall be informed immediately. Appropriate changes, if necessary, will be made to this HASP. Work will not resume until authorized.

At a minimum, all employees who will be working on the Site must:

1. Have read and understood the specifications contained in this HASP.
2. Have completed training requirements in 29 CFR 1910.120.

The employer shall provide health and safety equipment as indicated in this HASP and comply with the minimum requirements established by this HASP.

A copy of this HASP shall be kept on site, easily accessible to all employees and government inspectors, and in CSI's project files. MSDSs for all chemicals used and chemicals of concern will be available onsite. Emergency phone numbers, e.g. Chemtrec, Poison control, Fire Department, Hospital, Emergency POCs, etc., will be posted onsite. A fire extinguisher will be present onsite.

2.0 PROJECT DESCRIPTION

Project Name: Phase 2 9951 Greenleaf Avenue, Santa Fe Springs, CA

Site Location: 9951 Greenleaf Avenue, Santa Fe Springs, CA.

Site Description: Vacant lot; southeast portion of Waste Disposal, Inc. Superfund site.

2.1 Site Background

The original intent of the WDI site was for storage of petroleum by Union Oil. In the early 1920's, Union Oil constructed a 1,000,000 barrel (42 million gallon) capacity concrete reservoir which was used briefly and decommissioned in the late 1920's. The reservoir was subsequently used for unpermitted dumping until 1949, and then used under provisions of a permit thereafter; however, information regarding the exact quantity and type of wastes disposed on-site and in the reservoir is minimal and not detailed. In 1966 the dump was covered with fill and graded to its present condition. Soil contamination is presently concentrated in the buried reservoir and in several pockets surrounding the reservoir (formerly unlined disposal sumps), one of which is located on the Property. Soil is the most contaminated media beneath the Property. Sludges and oil-well drilling wastes are the primary sources of soli contaminants, with metals, volatile organic compounds, and semi-volatile organic compounds are present in the sludges. Pesticides and polychlorinated biphenyls (PCBs) have not been detected in previous soil investigations on the Property.

2.2 Work Description

Work at the site will consist of activities necessary to collect original representative soil and soil vapor samples in such a manner as to reduce uncertainties about the physical and chemical characteristics of these media.

2.3 29 CFR 1910.120(b)(4)(iii) Pre-Entry Meeting

Pursuant to 29 CFR 1910.120(b)(4)(iii) and prior to initiating field activities, CSI's field personnel and subcontractors will attend a site-specific health and safety pre-entry "tailgate" meeting conducted by the SSO or his field designee.

3.0 KEY PERSONNEL AND RESPONSIBILITIES

Mark H. Slatten, CEG, will act as CSI's Site Safety Officer (SSO), Project Manager, and Project Geologist.

As the Site Safety Officer (SSO), Mark Slatten has the ultimate responsibility for the health and safety of CSI personnel on the site. As part of his duties, Mr. Slatten shall be responsible for the following:

1. All CSI personnel on-site having received the proper training, and having been educated as to the potential hazards anticipated on the site, as well as the procedures and precautions to be implemented on the job.
2. All subcontractors having been given information as to the hazards expected at the site and on appropriate protective measures (subcontractors shall review and sign this HASP).
3. All necessary resources being available to provide a safe and healthy work environment for CSI personnel and subcontractors.

In addition, Mr. Slatten will have the responsibility for:

1. Monitoring the health and safety impacts of this project on all CSI personnel;
2. Assessing the potential health and safety hazards existing on the site;
3. Recommending appropriate safeguards and procedures;
4. Modifying the HASP, when necessary;
5. Approving any changes in safeguards used or operating procedures employed at the site;
6. On-site personnel complying with the requirements of the HASP;
7. Limiting access to specific areas;
8. Reporting unusual or potentially hazardous conditions to the client representative(s), and

Further, Mr. Slatten shall have the authority to:

1. Require that additional safety precautions or procedures be implemented;
2. Order an evacuation of the site or portions thereof, or shut down any operation, if he believes a health or safety hazard exists;
3. Approve or disallow any proposed modifications to safety precautions or working procedures;
4. Deny unauthorized personnel access to the site; and
5. Require that any worker, including the subcontractor's personnel, obtain immediate medical attention.

4.0 29 CFR 1910.120(b)(4)(ii)(A) RISK ANALYSIS

4.1 HAZARDS EVALUATION

Types of materials known or suspected to exist at the Site:

KNOWN IN SOIL

- TPH

c¹² and longer-chained hydrocarbons

-VOCs

ethylbenzene

methane

non-methane hydrocarbons

toluene

-semi-VOCs

2 methyl naphthalene

benzo(a)pyrene

di-n-butyl phthalate

isophorone

naphthalene

phenanthrene

-metals

arsenic

beryllium

cadmium

chromium total

chrome^{VI+}

copper

lead

nickel

thallium
zinc
-general minerals
nitrate

Site Status (Active/Inactive, Agency Actions): WDI Superfund site closed per letter issued by USEPA Region IX September 14, 2006.

Has the site been characterized to the best of your knowledge?

YES ☒ NO ☐

Summary of anticipated hazards:

(Please check appropriate box.)

- ☒ Physical Hazards inherent to the site
- ☒ Chemical Hazards
- ☒ Physical hazards related to the operations
- ☐ Community Hazards
- ☒ Electrical Hazards
- ☒ Mechanical Hazards
- ☐ Biohazards
- ☐ Radiation Hazards
- ☒ Heat Stress
- ☐ Confined Space Entry
- ☒ Noise Hazards
- ☐ Cold Stress

Comments: All personnel not involved directly in drilling or sampling are required to stay at least five (5) feet away from these operations.

4.2 Chemical Hazards

See the attached table.

4.3 Physical Hazards

- ☒ Fire ☐ Explosion ☐ Anoxia ☒ Heat Stress
☐ Cold Stress ☒ Noise ☐ Radiation ☐ Biohazards
☒ Vehicles ☒ Electrical ☒ Heavy Equipment
☒ Rotating Machinery ☐ Other Actions

4.4 Action Levels

The primary potential route of entry for chemicals is inhalation. Inhalation hazards due to volatilization will be monitored using a photo-ionization detector (PID) or flame-ionization detector (FID) to measure concentrations of organic

chemicals in the breathing zone. If ambient air concentrations of VOCs are above background in the breathing zone over a 5-minute average, a temporary stop work will be observed. Should airborne organic concentrations in the breathing zone exceed 25 parts per million (ppm), Level C respiratory protection using a NIOSH-approved half-faced APR with organic cartridges will be required.

The action level for a temporary stop work will be a field reading equivalent to 10% of the lower explosive limit (LEL) for diesel fuel. All operating equipment will be turned off, and the SSO will be notified immediately.

4.5 Protection Against Physical Hazards

Noise - Noise results primarily from heavy equipment operations. Workers will wear earplugs when operating heavy machinery and mechanical blowers. However, based on previous field experience, the expected noise level should not prevent field activities if appropriate hearing protection devices are used. Blower equipment will operate continuously day and night during remediation.

Electric Shock - Underground utilities will be located and marked prior to drilling or digging at the site. Workers and work equipment will maintain a minimum of 10 feet clearance from high voltage power lines. All electrical equipment to be used during field activities will be suitably grounded and insulated. If splicing wires must connect equipment, all connections will be properly taped. CSI personnel and subcontractors will be familiar with specific operating procedures of any equipment they intend to use. Overhead electric lines may be in the area of the proposed backhoe operations.

Heavy Equipment - Hazards related to heavy equipment will necessitate securing the work area. All relevant requirements pursuant to 29 CFR 1926.602 and Subpart W, *Rollover Protective Structures; Overhead Protection*, shall be observed during the course of field activities. In specific, be alert of all earth moving equipment and hydraulic machinery. Do not stand or walk under loads or ladders, or near unguarded excavations and trenches. Do not enter an excavation or trench over 5 feet deep unless it has been properly guarded, shored or sloped. A CSI representative will "spot" for piping and other subsurface structures/obstructions for the backhoe operator during all trenching activities.

Heat Stress - The potential for heat stress will be minimized by beginning work early in the day and taking breaks mid-day, when temperatures normally peak. Workers will be provided with liquids throughout the workday. The duration and number of rest breaks will be determined by the temperature, humidity, and workload. Workers will be monitored for symptoms of heat stress such as increased pulse rate, high body temperature, and hot, dry red skin.

General Safety - All CSI personnel will wear approved head and eye protection while working around heavy equipment in the Site work area. Fire hydrants, electrical and underground lines and pipes will be identified before work begins. A first aid kit, eye wash kit, and one 20-pound or two 10-pound fire extinguishers with a type ABC rating will be kept within the provided office space.

Eating, drinking, and smoking will not be permitted in the exclusion zone, if delineated. Only authorized personnel will be allowed in any controlled areas.

4.6 Hazard Analysis Summary

Pursuant to 29 CFR 1910.120(b)(ii)(A), a hazard analysis summary has been completed for each of the following site tasks:

- Drilling
- Sampling
- Sample preparation
- Well logging

For each task, the type of PPE that will be needed, the equipment used, the training/certification requirements needed for each piece of equipment, and the required inspection requirements needed are provided in the table below.

Task	Drilling	Sampling	Sample Preparation	Logging
PPE	Level D	Level D	Level D	Level D
Equipment	Geoprobe 5600	Minirae 2000, gloves, caps, sleeves, etc.	Teflon, baggies, gloves, cooler, etc.	Munsell chart
Certification	CA C-57	Hazwoper	Hazwoper	CA PG/CEG
Inspection	Pre-drill at shop	Calibrate Minirae each morning	Inventory supplies each morning	Peer review of logs
Expected hazards	Mechanical, noise, slips, trips, falls, heat, dust, airborne VOCs and semi-VOCs	Mechanical, noise, slips, trips, falls, heat, dust, airborne VOCs and semi-VOCs	Heat, cuts, noise, lifting	Heat, noise

5.0 29 CFR 1910.120(b)(4)(ii)(B) TRAINING REQUIREMENTS

- ☐ The SSO shall have fulfilled all appropriate training requirements indicated by 29 CFR 1910.120 (e), including the 40-hour training requirement and any required refresher courses. Copies of current OSHA training certificates are available upon request for all Site workers.
- ☐ A tailgate session will be held prior to commencing initial field activities to discuss this HASP. All CSI personnel, contractors and subcontractor employees shall attend weekly safety meetings thereafter and receive the following minimum information:
 - ☐ The names of personnel and alternates responsible for site safety and health;
 - ☐ Safety, health, and other hazards present on the Site;
 - ☐ Work practices by which employees can minimize risks from on-site hazards;
 - ☐ Instruction for safe use of engineering controls and equipment on the Site;
 - ☐ Site control measures;
 - ☐ Standard operating procedures for the facility;
 - ☐ Emergency plans; and
 - ☐ Proposition 65 warnings.

6.0 29 CFR 1910.120(b)(4)(ii)(C) Personal Protective Equipment

The following personal protective equipment (PPE) will be worn by all CSI employees and subcontractors when involved in on-site field activities.

- X Work uniform (shirt and long pants or coveralls)
- X Hard Hat
- X Steel-toe/steel shank boots
- X Disposable PVC nitrile gloves, or equivalent, when in contact with contaminated soil

Additional PPE and safety equipment may be required as discussed in the following sections.

6.1 Respiratory Protection

All field personnel will use Level D respiratory protection during field activities in all work areas as a result of expected low concentrations of organic hydrocarbons in the ambient air. Standard work practices, such as performing field activities in the upwind position, will be observed whenever possible. Soil dust at the site may contain naturally occurring metals at low levels and do not present a significant hazard but air-borne dust and skin contact with the soil should be avoided. Where impractical, the SSO, or designated alternate, will be consulted to identify acceptable alternatives.

Level C respiratory protection using NIOSH-approved half-face air purifying respirators (APR) with volatile organic or combination high-efficiency particulate (HEPA)/volatile organic cartridges may be required during drilling activities if particulates in the air are above action levels (see Section 5.3). Consequently, contingency planning necessitates that NIOSH-approved half-face APR fitted with VOC or HEPA/VOC combination cartridges be kept on site during the course of the field effort. Any facial hair which interferes with the respirator face seal will not be allowed.

7.0 29 CFR 1910.120(b)(4)(ii)(D) MEDICAL MONITORING

Appropriate medical monitoring will be required of CSI personnel to:

- ☐ Meet the requirements of 29 CFR 1910.120 (f);
- ☐ Meet the requirements for respirator use; and
- ☐ Meet other legal requirements.

8.0 29 CFR 1910.120(b)(4)(ii)(E) AIR MONITORING

Pursuant to 29 CFR 1910.120(b)(4)(ii)(E), air monitoring will be conducted to detect the concentration of VOCs in the breathing zone and in the background. A Minirae 2000 photoionization detector (PID), calibrated to a 100-parts-per-million (ppm)-standard each morning in the field before drilling activities begin, will be set up near the drilling operations. The instrument will analyze air in the breathing zone on a continual basis. Every time drill pipe is removed from the borehole, the PID probe will be placed in it to detect concentrations of VOCs in the borehole. The instrument will be carried beyond the influence of the drilling operations every hour to analyze background levels of VOCs. The instrument's alarms will be set to indicate concentration levels of VOCs that exceed 50 ppm (low level alarm) and 100 ppm (high level alarm). The wavelength of the bulb (11.7e) will detect most VOCs, semi-VOCs, and chlorinated compounds expected to be present on site.

9.0 29 CFR 1910.120(b)(4)(ii)(F) SITE CONTROL MEASURES

Pursuant to 1920.120(b)(ii)(F), site control measures will be implemented. The Site is surrounded by a 6-foot-high fence on private property and access to the public is limited by that. The work area is defined as "the specific area of the drilling rig and drilling activities". Each drilling location on-site will be clearly delineated by cones and caution tape and designated as the "exclusion zone". Within the exclusion zone, a plastic tarp will be designated as the area reserved for "dirty" equipment to be placed. A pressure-washer will be staged in the vicinity of the "dirty" area to facilitate cleaning of drill pipe and other equipment. A separate, tarped area will be designated for "clean" equipment. The area immediately surrounding the drilling rig will be designated as the "hot" zone and restricted to qualified personnel.

At a minimum, all visitors entering the exclusion zone must be briefed about the hazards of the Site or will read the HASP. All visitors must wear the appropriate protective clothing and equipment as worn by CSI personnel. Permission to enter the exclusion zone must be obtained from at least one of the personnel named in Section 3.0. Visitor's name and purpose of visit will be recorded in the field notes.

10.0 29 CFR 1910.120(b)(4)(ii)(G) Decontamination Procedures

10.1 Personal Protective Equipment

PPE such as disposable gloves, coveralls, and other disposable clothing or equipment worn by CSI personnel will be placed in a suitable disposal container on site at the end of each workday. PPE will be replaced if their protective function is compromised through holes or tears. Used respirator cartridges will be placed in a suitable disposal container on site. All disposable PPE shall be left on the site and bagged for appropriate disposal. In the unlikely event that PPE needs to be disposed of other than through regular trash service, CSI will take responsibility for its disposal.

10.2 Personnel

Decontamination will be required prior to leaving the site. A formal decontamination area will not be required. All personnel will be required to wash their hands and faces prior to leaving the site at the end of each work day. In addition, no drinking, eating, or smoking will be allowed in the immediate work area, and personnel will wash their hands before conducting these activities on

their breaks. It is recommended that a shower be taken at the end of the workday upon reaching one's residence and prior to the next meal.

10.3 Equipment

Small equipment/instrumentation should be wiped down at the end of every workday.

Vehicles or heavy construction equipment that have been in contact with contaminated soil shall be evaluated for potential decontamination prior to moving off the site.

10.4 Disposal Procedures

Soil sample analysis results will be evaluated to assess the appropriate disposal method for soils that are suspected of being contaminated.

Disposable gloves, coveralls, and other disposable clothing or equipment worn by CSI personnel will be placed in a suitable disposal container on site at the end of each workday. PPE will be replaced if their protective function is compromised through holes or tears. Any used respirator cartridges will be placed in a suitable disposal container on site. All equipment that comes in contact with affected soils or groundwater will be cleaned with Alconox and TSP and rinsed with water prior to removal from the site area. In the unlikely event that PPE needs to be disposed of other than through regular trash service, CSI will take responsibility for its disposal..

11.0 29 CFR 1910.120(b)(4)(ii)(H) EMERGENCY PROCEDURES

11.1 Injuries, Exposures, or Illnesses

In the event of an injury, life-threatening or otherwise, the injured individual shall be given immediate first aid; 911 called (if necessary), and the individual transported (via ambulance if required) to:

Norwalk Community Hospital
13222 Bloomfield Avenue
Norwalk, CA 90670

The location and route to the hospital are attached to this HASP. The fastest route to the hospital would be to head southwest on Greenleaf Avenue toward Los Nietos Road, then continue on Shoemaker Avenue. A right turn should be made at Lakeland Road and then a left turn at South Bloomfield Avenue. There is a slight right at Bloomfield Avenue, where a U-turn should be made. The

hospital will be on the right-hand side. Any injuries sustained while at the 9951 Greenleaf Avenue site will be reported and recorded in accordance with CSI's policies and procedures.

Two team members who are CPR/First Aid-certified are:

Mark Slatten, SSO cell: 951-970-6955

Joe Kennedy, Property owner cell: 310-753-5770

11.2 Emergency Phone Numbers

Medical/General Services

Police Department	911
Fire Department	911
Ambulance	911
Norwalk Community Hospital	(562) 863-4763

Hazardous Materials Response/Reporting

National Emergency Response Center	1-800-424-8802
CA State Office of Emergency Services	1-800-852-7550

Site Responsible Parties

Mark Slatten, RG, CEG	(951) 970-6955
Joe Kennedy (Site Owner)	(310) 753-5770

Client Contact

Mr. Joe Kennedy PO Box 1684 Lomita, CA 90717	(310) 753-5770
--	----------------

11.3 General

If an exposure or injury occurs, work shall be temporarily halted until an assessment can be made of whether it is safe to continue work. The SSO shall make the decision regarding the safety of continuing work.

In the case of fire or other hazards, the Los Angeles County Fire Department shall be notified. Injuries or exposures shall be reported to the SSO along with any recommendations for preventing recurrences.

11.4 Emergency Equipment

First aid supplies and, at a minimum, one 20-pound or two 10-pound fire extinguishers shall be kept on the site.

12.0 29 CFR 1910.120.(b)(4)(ii)(I) CONFINED SPACE ENTRY

There are no confined spaces to enter at this Site.

13.0 29 CFR 1910.120(b)(4)(ii)(J) Spill Containment

Spill containment does not apply to this investigation at this Site.

14.0 DOCUMENTATION

Injury, illness, and exposure records for all personnel shall be kept by the SSO. Any injuries sustained while at the project site will be reported and recorded in accordance with CSI's policies and procedures.

15.0 PROPOSITION 65

Under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), individuals who may be exposed in the work place to chemicals that may cause cancer or birth defects must be warned of such hazards pursuant to California Health and Safety Code 25249.6. The chemicals known or suspected to be present at the Site that may cause cancer or birth defects are identified in Section 11.1. Associated warnings are presented in Section 11.2.

15.1 Carcinogens

Benzene is the only compound at the Site is known to the State of California to cause cancer. PCE and TCE are, pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986, suspected by the State of California to cause cancer.

15.2 Warnings

Pursuant to Section 25249.6 of the California Health and Safety Code and Sections 17601 (c)(3)(A) and 12601 (c)(3)(B), the following warning must be

made for all workers that will be conducting planned field activities at the Site if potential exposures exceed the State of California no significant risk level of 10^{-5} :

WARNING: This area contains chemicals known to the State of California to cause cancer.

16.0 APPROVALS

16.1 CSI Personnel

This HASP for field activities at 9951 Greenleaf Avenue, Santa Fe Springs, CA is approved by the following CSI personnel:

Mark H. Slatten
SSO, Project Manager

Date

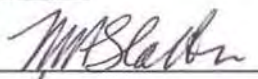
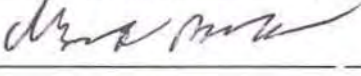
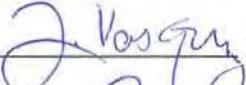
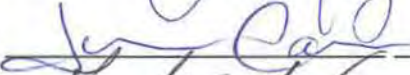
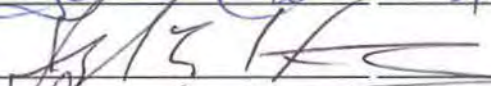
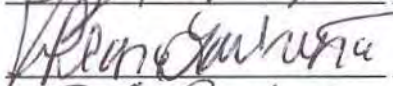
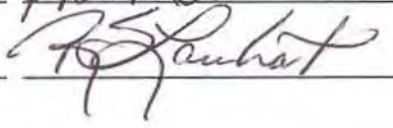
16.2 Contractor and Subcontractor Personnel

Contractor and Subcontractor Agreement:

1. Contractor certifies that the following personnel to be employed on the site have met the requirements of the OSHA Hazardous Waste Operator Standard 29 CFR 1910.120 and other applicable OSHA Standards.
2. Contractor certifies that, in addition to meeting the OSHA requirements, it has received a copy of this HASP and will ensure that its employees are informed and will comply with both OSHA requirements and the guidelines in this HASP.
3. Contractor further certifies that it has read, understands, and will comply with all provisions of this HASP, and it will take full responsibility for the health and safety of its employees.

Greenleaf Property
Site Specific Health and Safety Plan

March 2009
Page B-15

<u>Contractor</u>	<u>Signature</u>	<u>Date</u>
MARK SLATTEN /CSI		3-23-09
Adam Spangler /CSI		3-23-09
FERNANDO VASQUEZ /JEH		3-23-09
Juan Canon JH		3/23/09
Joseph Kennedy		
Melanie Lawrence		3/23/09
Rick Larnhart		3/23/09

CHEMICAL HAZARDS

CHEMICAL NAME	Carcino-gen	PEL	STEL	TWA	Vapor Pressure ² (H ₂ O = 14.7mm)	Boiling Point ² (H ₂ O = 212°F)	Exposure Pathways	IDLH
TPH – oil	NO	5 mg/m ³	10 mg/m ³	none listed	>40mm (>n-heptane)	>208.4°F (>n-heptane)	Inh, Abs, Ing, Con	2500 mg/m ³
Ethylbenzene	YES*	none listed	545 mg/m ³	435 mg/m ³	7mm	277°F	Inh, Ing, Con	800 ppm
Toluene	YES*	none listed	560 mg/m ³	375 mg/m ³	21mm	232°F	Inh, Abs, Ing, Con	500 ppm
2 methyl naphthalene	NO	none listed	75 mg/m ³	50mg/m ³	0.068mm	466°F	Inh, Abs, Ing, Con	250 ppm
Benzo(a) Pyrene	YES*	0.2 mg/m ³	0.1 mg/m ³	0.02 mg/m ³	negligible	354°F	Inh, Abs, Ing, Con	800 ppm
Methane	NO	none listed	none listed	none listed	not applicable	-258.7°F	Inhalation	Simple asphyxiant
Isophorone	NO	none listed	23 mg/m ³	140 mg/m ³	0.3mm	419°F	Inh, Ing, Con	200 ppm
Naphthalene	NO	none listed	75 mg/m ³	50mg/m ³	0.08mm	424°F	Inh, Abs, Ing, Con	250 ppm
Arsenic	Yes*	none listed	0.002 ³ mg/m ³	0.010 ¹ mg/m ³	0mm	sublimes	Inh, Abs, Ing, Con	5mg/m ³ as As
Beryllium	Yes*	None listed	0.0005 ³ mg/m ³	0.002 ¹ mg/m ³	0mm	4532°F	Inh, Con	4mg/m ³ as Be
Cadmium	Yes*	None listed	None listed	0.005 mg/m ³	0mm	1409°F	Inh, Inj	9mg/m ³ as Cd
Chromium (III)	No	None listed	None listed	0.5 mg/m ³	varies	varies	Inh, Con	25mg/m ³ as Cr(III)
Chromium (metal)	No	None listed	None listed	0.5 mg/m ³	4788°F	0mm	Inh, Inj, Con	250mg/m ³ as Cr
Copper	No	None listed	None listed	1 mg/m ³	4703°F	0mm	Inh, Inj, Con	100mg/m ³ as Cu
Lead	No	None listed	0.100 ³ mg/m ³	0.050 mg/m ³	3164°F	0mm	Inh, Inj, Con	100mg/m ³ as Cu
Nickel	Yes*	None listed	0.015 mg/m ³	1 mg/m ³	0mm	5139°F	Inh, Inj, Con	10mg/m ³ as Ni
Thallium	No	None listed	0.100 ³ mg/m ³	0.100 ³ mg/m ³	varies	varies	Inh, Abs, Ing, Con	15mg/m ³ as Tl
Zinc	No	None listed	10 ³ mg/m ³	15 ³ mg/m ³	unknown	varies	Inh, Ing, Con	ND

*Some of these substances are suspected potential occupational carcinogens in CA.

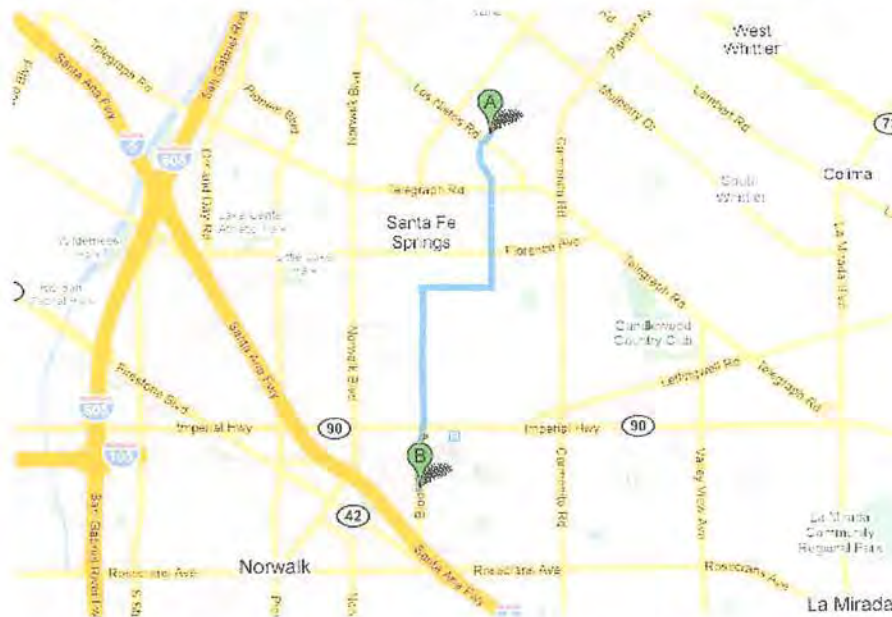
1 = OSHA recommended value, cited in NIOSH or other reference

2 = The Vapor Pressure & Boiling Point are indications of a chemical's volatility: a substance's Vapor Pressure is (14.7mm = atmospheric) is the pressure require to compress it from a gas to a liquid; a substance's Boiling Point indicates the temperature at which it will boil, or move to the gas phase (volatilize). Comparing VP and BP to Standard Temperature and Pressure (STP) allows an evaluation of a chemical's mobility and potential for exposure.

ND = Not Determined NL=not listed

3= 15-min ceiling recommended exposure limit (REL), established by NIOSH, not to be exceeded at any time

DRIVING DIRECTIONS TO NORWALK COMMUNITY HOSPITAL FROM GREENLEAF AVENUE SITE



**Driving directions to Norwalk Community Hospital-ER
3.2 mi – about 10 mins**

9951 Greenleaf Ave
Santa Fe Springs, CA 90670

- | | |
|---|--------|
| 1. Head southwest on Greenleaf Ave toward Los Nietos Rd | 0.4 mi |
| 2. Continue on Shoemaker Ave | 0.7 mi |
| 3. Turn right at Lakeland Rd | 0.5 mi |
| 4. Turn left at S Bloomfield Ave | 1.1 mi |
| 5. Slight right at Bloomfield Ave | 0.4 mi |
| 6. Make a U-turn | 148 ft |
| Destination will be on the right | |

Norwalk Community Hospital-ER
13222 Bloomfield Ave, Norwalk, CA 90650

APPENDIX C
BORING LOGS

32309-1

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:
3/23/2009Date Finished:
3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation
(AMSL):

SAMPLE LOG

Start Time: 0915

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
1-5	0920			5	ML		5' - SILT, olive green (7.5YR 3/2), mottled with yellow brown oxidation, coarse, sandy < 1%, clayey with rare small gravel (to 1/8"), plastic, micaceous, massive, chaotic structure, damp- to wet, no odor.
				6			
				7			
				8			
				9			
1-10	0930			10	ML		10' (upper 1/3) - SILT, brown/black (7.5YR 2.5/1), mottled with yellow brown oxidation, fine, clayey with very rare small gravel (to 1/8"), no sand, stiff, less micaceous than above, parting surfaces concave upwards, dry- to damp, no odor.
				11			
				12			
				13			10' (lower 2/3) - SILT, red brown (7.5YR 4/4), mottled with red, orange, yellow, and black/brown oxidation, fine, clayey with rare caliche nodules and fine-grained sand (<1%), very stiff and brick-like, less micaceous than above, massive and chaotic structure, dry, no odor.
				14			
1-15	0940			15	ML		15' - SILT, brown (7.5YR 5/4), highly mottled with yellow and black/gray oxidation, fine, clayey with caliche nodules to 1/8" (<5%) and fine-grained sand (<1%), very stiff, micaceous, massive and chaotic structure, dry, no odor.
				16			
				17			
				18			
				19			
1-20	0950			20	ML		20' (upper 2/3) - SILT, red brown (7.5YR 4/4), highly mottled with yellow and black/gray oxidation, fine, clayey with caliche nodules to 1/8" (<5%) and fine-grained sand (<1%), very stiff, micaceous, massive and chaotic structure, dry, no odor.
							20' (upper 1/3) - SILT, brown/black (7.5YR 2.5/1), mottled with yellow brown oxidation, fine, clayey with very rare small gravel (to 1/8"), fine-grained sand (<1%), plastic, micaceous, massive, chaotic structure, damp, no odor.

Summa Cannister soil
vapor sample collection
depth

32109-2

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:

3/21/2009

Date Finished:

3/21/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation

(AMSL):

SAMPLE LOG

Start Time: 1015

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
2-5	1020			5	ML		5' - SILT, dark brown (7.5YR 3/4), very fine, sandy < 1%, organic and clayey, plastic, micaceous, massive, chaotic structure, damp, sticky, no odor.
				6			
				7			
				8			
				9			
2-10	1030			10	ML		10' - SILT, red brown (7.5YR 4/2), highly mottled with yellow and black/gray oxidation, fine, clayey with caliche nodules to 1/8" (<5%) and fine-grained sand (<1%), very stiff, finely micaceous, massive and chaotic structure, dry, no odor.
				11			
				12			
				13			
				14			
2-15	1040			15	ML		15' - SILT, red brown (7.5YR 4/2), coarse, clayey with caliche nodules to 1/8" (<1%) and fine-grained sand (<5%), very stiff, finely micaceous, massive and chaotic structure, dry, no odor.
				16			
				17			
				18			
				19			
2-20	1050			20	ML		20' - SILT, red brown (7.5YR 4/4), mottled with red, orange, yellow, and black/brown oxidation, fine, clayey with rare caliche nodules and fine-grained sand (<1%), very stiff and brick-like, micaceous, massive and chaotic structure, dry, no odor.

32309-3

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:
3/23/2009Date Finished:
3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation
(AMSL):

SAMPLE LOG

Start Time: 1105

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
3-5	1110			5	ML		5' – SILT, brown, (7.5YR 3/3), very little mottling (yellow brown), sandy < 1%, clayey with rare small caliche nodules (<1% to 1/8"), stiff, micaceous, massive, chaotic structure, dry, no odor.
				6			
				7			
				8			
				9			
3-10	1115			10	ML		10' (upper 1/3) – SILT, red brown (7.5YR 4/4), mottled with yellow brown oxidation, fine, clayey with very rare small caliche nodules (<1% to 1/8"), no sand, stiff, micaceous, parting surfaces concave upwards, dry, no odor. 10' (lower 2/3) – SILT, red brown (7.5YR 4/4), mottled with red, orange, yellow, and black/brown oxidation, fine, clayey with caliche nodules (<5%) and fine-grained sand (<1%), very stiff and brick-like, less micaceous than above, massive and chaotic structure, dry, no odor.
				11			
				12			
				13			
				14			
3-15	1120			15	ML		15'– SILT, brown (7.5YR 5/4), highly mottled with yellow and black/gray oxidation, fine, clayey with caliche nodules to 1/8" (<5%) and fine-grained sand (<1%), very stiff, finely micaceous, massive and chaotic structure, dry, no odor.
				16			
				17			
				18			
				19			
3-20	1130			20	ML		20'– SILT, red brown (7.5YR 4/4), highly mottled with red, yellow, and black/gray oxidation, coarse, clayey with caliche nodules to 1/8" (<5%) and medium-grained sand (<5%), loose, finely micaceous, massive and chaotic structure, slightly damp, no odor.

32309-4

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:
3/23/2009Date Finished:
3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation
(AMSL):

SAMPLE LOG

Start Time: 1145

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
4-5	1150			5	ML		5' - SILT, brown (7.5YR 3/3), fine, sandy < 1%, clayey with rare small caliche nodules (to 1/8" < 5%), stiff, micaceous, massive, chaotic structure, dry, no odor.
				6			
				7			
				8			
				9			
4-10	1200			10	ML		10' - SILT, red brown (7.5YR 4/4), mottled with yellow brown oxidation, fine, clayey with rare gravel to 1/8", less micaceous than above, massive and chaotic structure, damp, no odor.
				11			
				12			
				13			
				14			
4-15	1205			15	ML		15' (upper half) - SILT, gray brown (7.5YR 5/1), mottled with yellow/brown oxidation, fine, clayey with caliche nodules to 1/8" (< 5%) and fine-grained sand (< 5%), very stiff, micaceous, massive and chaotic structure, dry, no odor.
				16			
				17			
				18			
				19			
4-20	1210			20	SM		15' (lower half) - SILT, red brown (7.5YR 4/4), highly mottled with red, orange, yellow, and black/brown oxidation, coarse, clayey with caliche nodules to 1/8" (< 5%) and fine-grained sand (< 1%), loose, micaceous, massive and chaotic structure, dry, no odor.
							20' - SAND, red brown (7.5YR 4/4), highly mottled with red, yellow/brown oxidation, coarse-grained, silty, arkosic with caliche nodules to 1/8" (< 5%), well-sorted, poorly-graded, micaceous, massive and chaotic structure, slightly damp, no odor.

32309-5

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:

3/23/2009

Date Finished:

3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation
(AMSL):

SAMPLE LOG

Start Time: 1215

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
5-5	1220			5	ML		5' – SILT, olive green (7.5YR 3/2), mottled with yellow brown oxidation, coarse, sandy < 1%, clayey with rare small gravel (to 1/8"), plastic, micaceous, massive, chaotic structure, damp- to wet, no odor.
				6			
				7			
				8			
				9	ML		
5-10	1230			10	SM		10' (upper half) – SILT, red brown (7.5YR 4/4), highly mottled with yellow and black/gray oxidation, fine, clayey with caliche nodules to 1/8" (<1%) and fine-grained sand (<1%), very stiff, micaceous, massive and chaotic structure, dry, no odor.
				11			
				12			
				13			
				14			
5-15	1240			15	ML		10' (lower half) – SAND, , brown (7.5YR 5/4), highly mottled with yellow and gray/black oxidation, fine-grained, silty, arkosic with caliche nodules to 1/8" (<5%), well-sorted, poorly-graded, micaceous, massive and chaotic structure, very dry and loose, no odor.
				16			
				17			
				18			
				19			
5-20	1245			20	SM		15' (upper 1/3) – SILT, red brown (7.5YR 4/4), highly mottled with red, yellow/brown oxidation, coarse-grained, silty, arkosic with caliche nodules to 1/8" (<5%), well-sorted, poorly-graded, micaceous, massive and chaotic structure, slightly damp, no odor.

Summa Cannister soil
vapor sample collection
depth

15' (lower 2/3) – SILT, red brown (7.5YR 4/4), mottled with red, orange, yellow, and black/brown oxidation, fine, clayey with rare caliche nodules and fine-grained sand (<1%), very stiff and brick-like, less micaceous than above, massive and chaotic structure, dry, no odor.

20' (upper half) – SILT, red brown (7.5YR 4/4), highly mottled with yellow and black/gray oxidation, fine, clayey with caliche nodules to 1/8" (<5%) and fine-grained sand (<1%), very stiff, micaceous, massive and chaotic structure, dry, no odor.

20' (upper half) – SAND, brown (7.5YR 5/4), highly mottled with yellow and gray/black oxidation, fine-grained, small gravel (to 1/8" <5%), silty, arkosic, well-sorted, poorly-graded, micaceous, massive, chaotic structure, very dry and loose, no odor.

32309-6

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:

3/23/2009

Date Finished:

3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation

(AMSL):

SAMPLE LOG

Start Time: 1250

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
6-5	1255			5	SM		5' SAND, , brown (7.5YR 6/3), fine-grained, silty, arkosic with caliche nodules to 1/8" (<5%), well-sorted, poorly-graded, micaceous, massive and chaotic structure, very dry and loose, no odor.
				6			
				7			
				8			
				9			
6-10	1305			10	ML		10'- SILT, light red brown (7.5YR 4/3), fine, slightly clayey with fine-grained sand (<1%), very stiff, micaceous, massive and chaotic structure, dry, no odor.
				11			
				12			
				13			
				14			
6-15	1310			15	ML		15'- SILT, red brown (7.5YR 4/4), fine, slightly clayey with fine-grained sand (<1%), very stiff, micaceous, massive and chaotic structure, dry, no odor.
				16			
				17			
				18			
				19			
6-20	1315			20	ML		20'- SILT, , brown (7.5YR 5/4), highly mottled with yellow and gray/black oxidation, coarse, sandy-medium-grained <5%, caliche nodules to 1/8" (<5%), micaceous, massive and chaotic structure, very dry and loose, no odor.

32309-7

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:

3/23/2009

Date Finished:

3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation

(AMSL):

SAMPLE LOG

Start Time: 1315

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
7-5	1320			5			5' - DEBRIS with SILT matrix, olive green (7.5YR 3/2), mottled with yellow brown oxidation, coarse, brick frags 50% of sample, clayey with pervasive rx (to 10%), micaceous, massive, chaotic structure, loose, dry, slight oily odor.
				6			
				7			
				8			
				9			
7-10	1325			10	ML		10' - SILT, gray brown (7.5YR 4/3), mottled with dark and light brown oxidation, coarse, wood frags 10% of sample, clayey with pervasive gravel to 1/4" (to 10%), micaceous, massive, chaotic structure, loose, dry, oily odor.
				11			
				12			
				13			
				14			
7-15	1330			15	ML		15' - SILT, olive brown (7.5YR 5/3), mottled with yellow brown oxidation, coarse, sandy medium-grained (<5%), clayey with rare gravel to 1/8" (<1%), micaceous, massive, chaotic structure, loose, dry, no odor.
				16			
				17			
				18			
				19			
7-20	1340			20	SM		20' - SAND, , brown (7.5YR 5/4), highly mottled with yellow and gray/black oxidation, fine-grained with coarse-grained sand (<5%), silty, arkosic with caliche nodules to 1/8" (<5%), well-sorted, poorly-graded, micaceous, massive and chaotic structure, very dry and loose, no odor.

32309-8

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:

3/23/2009

Date Finished:

3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation

(AMSL):

SAMPLE LOG

Start Time: 1435

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
8-5	1440			5	ML		5' (1/3) SILT, brown (7.5YR 4/2), coarse, sandy with medium-grained sand to 50% by volume, micaceous, massive and chaotic structure, very dry and loose, no odor, intercalated with:
				6			5' (1/3) SILT, red brown (7.5YR 4/4), fine-grained, sandy, micaceous, massive and chaotic structure, very stiff and dense, no odor, intercalated with:
				7			5' (1/3) SILT, olive gray (7.5YR 5/3), fine-grained, sandy, micaceous, massive and chaotic structure, very stiff and dense, no odor.
				8			
				9			
8-10	1445			10	ML		10' - SILT, gray brown (7.5YR 5/3), mottled with dark and light brown oxidation, coarse, clayey with rare gravel to 1/4" (<1%), micaceous, massive, chaotic structure, loose, wet, oily odor.
				11			
				12			
				13			
				14			
8-15	1450			15	ML		15' - SILT, olive brown (7.5YR 5/3), mottled with yellow brown oxidation, coarse, sandy medium-grained (<5%), clayey with rare gravel to 1/8" (<1%), micaceous, massive, chaotic structure, loose, dry, no odor.
				16			
				17			
				18			
				19			
8-20	1450			20	SM		20' - SAND, , brown (7.5YR 5/3), highly mottled with yellow and gray/black oxidation, fine-grained with rare gravel to 1/8" (<1%), silty, arkosic with caliche nodules to 1/8" (<1%), well-sorted, poorly-graded, micaceous, massive and chaotic structure, very dry and loose, no odor.

32309-9

BOREHOLE LOG

Number:

NO. 1 of 1

Client:

Greve Financial Services

Sheet:

Date Started:
3/23/2009Date Finished:
3/23/2009

Location:

9951 Greenleaf Ave. Santa Fe
Springs, CA 90670

TLGRep:

Mark Slatten, RG/CEG

Drill Rig/Sampling Method:

Geoprobe 6600

Borehole Dia.:

2"

Casing Dia.:

NA

Casing Elevation
(AMSL):

SAMPLE LOG

Start Time: 1505

BOREHOLE LOG

Sample Number	Sample Time	PID (ppm)	FID (ppm)	Depth In Feet	USCS Symbol	Graphic Log	Geologic Description (Soil Type, Color, Grain, Minor Soil Component, Moisture, Density, Odor, Etc.)
				0			
				1			
				2			
				3			
				4			
9-5	1510			5	ML		5' (1/3) SILT, red brown (7.5YR 4/4), fine-grained, sandy, slightly mottled with yellow brown, micaceous, massive and chaotic structure, very stiff and dense, no odor, intercalated with: 5' (1/3) SILT, olive gray (7.5YR 5/3), fine-grained, clayey, micaceous, massive and chaotic structure, very stiff and dense, no odor. 5' (bottom 1/3) SILT, brown (7.5YR 4/2), coarse, sandy with medium-grained sand to 50% by volume, micaceous, massive and chaotic structure, wet and squishy, oily odor.
				6			
				7			
				8			
				9			
9-10	1515			10	ML		10' - SILT, gray brown (7.5YR 5/3), mottled with dark and light brown oxidation, coarse, clayey with rare gravel to 1/4" (<1%), micaceous, massive, chaotic structure, loose, wet, oily odor.
				11			
				12			
				13			
				14			
9-15	1520			15	ML		15' - SILT, olive brown (7.5YR 5/3), mottled with yellow brown oxidation, coarse, sandy medium-grained (<5%), clayey with rare gravel to 1/8" (<1%), micaceous, massive, chaotic structure, loose, dry, no odor.
				16			
				17			
				18			
				19			
9-20	1530			20	ML		20' - SAND, , brown (7.5YR 5/3), highly mottled with yellow and gray/black oxidation, fine-grained with rare gravel to 1/8" (<1%), silty, arkosic with caliche nodules to 1/8" (<1%), well-sorted, poorly-graded, micaceous, massive and chaotic structure, very dry and loose, no odor.

Summa Cannister soil
vapor sample collection
depth

APPENDIX D

LABORATORY RESULTS

AND CHAINS-OF-CUSTODY



Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838
(714) 449-9937 • FAX (714) 4499685

JONES ENVIRONMENTAL

LABORATORY REPORT

Client: Clean Soils, Inc.
Client Address: 23811 Washington Ave., C-110#241
Murrieta, CA 92562

Report Date: 03/26/09
JEL Ref. No.: St-4848

Attn: Mark Slatten

Date Sampled: 03/23/09

Project: Greenleaf Site
Project Address: 9951 Greenleaf Ave., SFS, CA

Date Received: 03/23/09

Date Analyzed: 03/25/09

Physical State: Soil Gas

ANALYSES REQUESTED

1. EPA TO-15 - Volatile Organics by GC/MS in Air/SUMMA Canister

Approval:

Steve Jones, Ph.D.
Laboratory Manager



Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838
(714) 449-9937 • FAX (714) 4499685

JONES ENVIRONMENTAL

LABORATORY RESULTS

Client: Clean Soils, Inc.
Client Address: 23811 Washington Ave., C-110#241
Murrieta, CA 92562

Report Date: 03/26/09
JEL Ref. No.: St-4848

Attn: Mark Slatten

Date Sampled: 03/23/09
Date Received: 03/23/09

Project: Greenleaf Site
Project Address: 9951 Greenleaf Ave., SFS, CA

Date Analyzed: 03/25/09
Physical State: Soil Gas

EPA TO-15 - Volatile Organics by GC/MS in Air/ SUMMA Canister

<u>Sample ID:</u>	<u>32309-1- 12.5</u>	<u>32309-5- 15</u>	<u>32309-9- 10</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
Analytes:					
Acetone	0.474	0.515	0.073	0.001	ug/L
Acrolein	ND	ND	ND	0.003	ug/L
Benzene	0.028	ND	ND	0.002	ug/L
Benzyl Chloride	ND	ND	ND	0.003	ug/L
Bromodichloromethane	ND	ND	ND	0.004	ug/L
Bromoform	0.012	ND	ND	0.006	ug/L
Bromomethane	ND	ND	ND	0.002	ug/L
1,3-Butadiene	0.021	ND	ND	0.001	ug/L
2-Butanone (MEK)	0.028	0.009	ND	0.002	ug/L
Carbon disulfide	ND	ND	ND	0.002	ug/L
Carbon tetrachloride	ND	ND	ND	0.003	ug/L
Chlorobenzene	ND	ND	ND	0.003	ug/L
Chloroethane	ND	ND	ND	0.002	ug/L
Chloroform	ND	ND	ND	0.002	ug/L
Chloromethane	ND	ND	ND	0.001	ug/L
Cyclohexane	ND	ND	ND	0.002	ug/L
Dibromochloromethane	0.007	ND	ND	0.005	ug/L
1,2-Dibromoethane	ND	ND	ND	0.005	ug/L
1,2-Dichlorobenzene	ND	ND	ND	0.004	ug/L
1,3-Dichlorobenzene	ND	ND	ND	0.004	ug/L
1,4-Dichlorobenzene	ND	ND	ND	0.004	ug/L
1,1-Dichloroethane	ND	ND	ND	0.002	ug/L
1,2-Dichloroethane	ND	ND	ND	0.002	ug/L
1,1-Dichloroethene	ND	ND	ND	0.002	ug/L
cis-1,2-dichloroethene	ND	ND	ND	0.002	ug/L

ND = Not Detected



Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838
(714) 449-9937 • FAX (714) 4499685

JONES ENVIRONMENTAL

LABORATORY RESULTS

Client: Clean Soils, Inc.
Client Address: 23811 Washington Ave., C-110#241
Murrieta, CA 92562

Report Date: 03/26/09
JEL Ref. No.: St-4848

Attn: Mark Slatten
Project: Greenleaf Site
Project Address: 9951 Greenleaf Ave., SFS, CA

Date Sampled: 03/23/09
Date Received: 03/23/09
Date Analyzed: 03/25/09
Physical State: Soil Gas

EPA TO-15 - Volatile Organics by GC/MS in Air/ SUMMA Canister

<u>Sample ID:</u>	<u>32309-1- 12.5</u>	<u>32309-5- 15</u>	<u>32309-9- 10</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
Analytes:					
trans-1,2-dichloroethene	ND	ND	ND	0.002	ug/L
1,2-Dichloropropane	ND	ND	ND	0.003	ug/L
Cis-1,3-Dichloropropene	ND	ND	ND	0.003	ug/L
Trans-1,3-Dichloropropene	ND	ND	ND	0.003	ug/L
1,4-Dioxane	ND	ND	ND	0.002	ug/L
Ethanol	0.012	ND	0.012	0.001	ug/L
Ethyl acetate	ND	ND	ND	0.002	ug/L
Ethyl benzene	0.043	0.013	ND	0.003	ug/L
4-Ethyltoluene	0.022	ND	ND	0.003	ug/L
Freon 11	ND	ND	ND	0.003	ug/L
Freon 12	ND	ND	ND	0.003	ug/L
Freon 113	ND	ND	ND	0.005	ug/L
Freon 114	ND	ND	ND	0.004	ug/L
Heptane	0.105	0.009	ND	0.002	ug/L
Hexachloro-1,3-butadiene	ND	ND	ND	0.006	ug/L
Hexane	0.029	ND	ND	0.002	ug/L
2-Hexanone (MBK)	0.008	ND	ND	0.002	ug/L
4-Methyl-2-Pentanone (MIBK)	ND	ND	ND	0.002	ug/L
Methylene chloride	ND	ND	ND	0.002	ug/L
MTBE	ND	ND	ND	0.002	ug/L
Methyl methacrylate	0.098	ND	ND	0.002	ug/L
2-Propanol (Isopropyl Alcohol)	ND	ND	ND	0.002	ug/L
Propylene	ND	0.224	ND	0.001	ug/L
Styrene	ND	ND	ND	0.003	ug/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.004	ug/L

ND = Not Detected



Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838
(714) 449-9937 • FAX (714) 4499685

JONES ENVIRONMENTAL

LABORATORY RESULTS

Client: Clean Soils, Inc.
Client Address: 23811 Washington Ave., C-110#241
Murrieta, CA 92562

Report Date: 03/26/09
JEL Ref. No.: St-4848

Attn: Mark Slatten

Date Sampled: 03/23/09
Date Received: 03/23/09

Project: Greenleaf Site
Project Address: 9951 Greenleaf Ave., SFS, CA

Date Analyzed: 03/25/09
Physical State: Soil Gas

EPA TO-15 - Volatile Organics by GC/MS in Air/ SUMMA Canister

<u>Sample ID:</u>	<u>32309-1- 12.5</u>	<u>32309-5- 15</u>	<u>32309-9- 10</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
Analytes:					
Tetrachloroethene	0.050	0.028	0.128	0.004	ug/L
Tetrahydrofuran	ND	ND	ND	0.002	ug/L
Toluene	0.445	0.043	0.002	0.002	ug/L
1,2,4-Trichlorobenzene	ND	ND	ND	0.003	ug/L
1,1,1-Trichloroethane	ND	ND	ND	0.003	ug/L
1,1,2-Trichloroethane	ND	ND	ND	0.003	ug/L
Trichloroethene	ND	ND	ND	0.003	ug/L
1,2,4-Trimethylbenzene	0.010	ND	ND	0.003	ug/L
1,3,5-Trimethylbenzene	ND	ND	ND	0.003	ug/L
Vinyl Acetate	ND	ND	ND	0.004	ug/L
Vinyl chloride	ND	ND	ND	0.002	ug/L
o-Xylene	0.027	ND	ND	0.003	ug/L
p/m-Xylene	0.132	ND	ND	0.003	ug/L
TIC					
n-Propanol	ND	ND	ND	0.002	ug/L
Dilution Factor	1	1	1		
Surrogate Recovery :				QC Limits	
4-Bromofluorobenzene	91%	81%	87%	60 - 140	

ND = Not Detected



Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838
(714) 449-9937 • FAX (714) 4499685

JONES ENVIRONMENTAL

QUALITY CONTROL INFORMATION

Client:	Clean Soils, Inc.	Report Date:	03/26/09
Client Address:	23811 Washington Ave., C-110#241 Murrieta, CA 92562	JEL Ref. No.:	St-4848
Attn:	Mark Slatten	Date Sampled:	03/23/09
Project:	Greenleaf Site	Date Received:	03/23/09
Project Address:	9951 Greenleaf Ave., SFS, CA	Date Analyzed:	03/25/09
		Physical State:	Soil Gas

**EPA TO-15 - Volatile Organics by GC/MS in Air/
SUMMA Canister**

Sample Spiked: AMBIENT AIR

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
1,1-Dichloroethylene	124%	125%	1.0%	60 - 140
Benzene	112%	117%	4.6%	60 - 140
Trichloroethylene	121%	122%	0.1%	60 - 140
Toluene	113%	117%	3.4%	60 - 140
Chlorobenzene	122%	123%	1.1%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

Chain-of-Custody Record

Client <u>CLEAN SOIL</u>	Date <u>3-23-09</u>
Project Name <u>GREEN LEAF SITE</u>	Client Project #
Project Address <u>9951 GREEN LEAF AVE</u>	Turn Around Requested: <input type="checkbox"/> Immediate Attention <input type="checkbox"/> Rush 24-48 Hours <input type="checkbox"/> Rush 72-96 Hours <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Mobile Lab
<u>SOUTH PE SPRING CO</u>	
Project Contact <u>MARK SLOTTEN</u>	SOIL GAS Purge Vol: <input type="checkbox"/> 1P <input type="checkbox"/> 3P <input type="checkbox"/> 7P Tracer _____ Purge Rate: _____ cc/min

JEL Project # 574848

Page 1 of 1

Lab Use Only

Sample Condition as Received:

Chilled ☐ yes ☐ no

Sealed ☐ yes ☐ no

Sample ID	Purge Volume	Discussion	Date	Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested	Number of Containers	Remarks/Special Instructions
32309-1-12.5			3-23-09			A 10-15			
32309-5-15			3-23-09						
32309-9-10			3-23-09						

1 Relinquished by (signature) <u>[Signature]</u>	Date <u>3-23-09</u>	2 Received by (signature) <u>[Signature]</u>	Date <u>3/23/09</u>	Total Number of Containers
Company <u>[Signature]</u>	Time <u>1630</u>	Company <u>JEL</u>	Time <u>1630</u>	
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
Company	Time	Company	Time	



Alpha Scientific Corporation

Environmental Laboratories

03-30-2009

Mr. Joseph Kennedy
Greve Financial
PO Box 1684
Lomita, CA 90717

Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Sample Date: 03-23-2009
Lab Job No.: GF903106

Dear Mr. Kennedy:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 03-23-2009 and analyzed for the following parameters:

EPA 8260B (VOCs by GC/MS)
EPA 6010B/7471A for CAM Metals

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is certified by CA DHS (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our Laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph. D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED				03-24	03-24-09	03-24-09	03-24-09	03-24-09	03-24-09
DILUTION FACTOR (DF)				1	1	1	1	1	1
LAB SAMPLE I.D.					GF903106-1	GF903106-2	GF903106-3	GF903106-4	GF903106-5
CLIENT SAMPLE I.D.					32309-1-5'	32309-1-10'	32309-1-15'	32309-1-20'	32309-2-5'
COMPOUND	MDL	PQL	MB						
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND	ND
Iodomethane	2	5	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	10	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND	ND
Benzene	1	2	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	2	4	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-1-5'	32309-1-10'	32309-1-15'	32309-1-20'	32309-2-5'
Toluene	1	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	2	ND	ND	ND	ND	ND	ND
Total Xylenes	2	4	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
Acetone	50	75	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	75	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND	ND	ND	ND
Ethanol	500	1000	ND	ND	ND	ND	ND	ND
MTBE	2	5	ND	ND	ND	ND	ND	ND
ETBE	2	5	ND	ND	ND	ND	ND	ND
DIPE	2	5	ND	ND	ND	ND	ND	ND
TAME	2	5	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED			03-24	03-24-09	03-24-09	03-24-09	03-24-09	03-24-09
DILUTION FACTOR (DF)			1	1	1	1	1	1
LAB SAMPLE I.D.				GF903106-6	GF903106-7	GF903106-8	GF903106-9	GF903106-10
CLIENT SAMPLE I.D.				32309-2-10'	32309-2-15'	32309-2-20'	32309-3-5	32309-3-10
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	10	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	2	ND	ND	ND	ND	ND	ND
Trichloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-2-10'	32309-2-15'	32309-2-20'	32309-3-5	32309-3-10
Toluene	1	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	2	ND	ND	ND	ND	ND	ND
Total Xylenes	2	4	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
Acetone	50	75	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	75	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND	ND	ND	ND
Ethanol	500	1000	ND	1,960	ND	ND	ND	ND
MTBE	2	5	ND	ND	ND	ND	ND	ND
ETBE	2	5	ND	ND	ND	ND	ND	ND
DIPE	2	5	ND	ND	ND	ND	ND	ND
TAME	2	5	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED			03-24	03-24-09	03-24-09	03-24-09	03-24-09	03-24-09
DILUTION FACTOR (DF)			1	1	1	1	1	1
LAB SAMPLE I.D.				GF903106-11	GF903106-12	GF903106-13	GF903106-14	GF903106-15
CLIENT SAMPLE I.D.				32309-3-15	32309-3-20	32309-4-5	32309-4-10	32309-4-15
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	10	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	2	ND	ND	ND	ND	ND	ND
Trichloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-3-15	32309-3-20	32309-4-5	32309-4-10	32309-4-15
Toluene	1	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	2	ND	ND	ND	ND	ND	ND
Total Xylenes	2	4	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
Acetone	50	75	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	75	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND	ND	ND	ND
Ethanol	500	1000	ND	ND	ND	ND	ND	ND
MTBE	2	5	ND	ND	ND	ND	ND	ND
ETBE	2	5	ND	ND	ND	ND	ND	ND
DIPE	2	5	ND	ND	ND	ND	ND	ND
TAME	2	5	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED			03-24	03-24-09	03-24-09	03-24-09	03-24-09	03-24-09
DILUTION FACTOR (DF)			1	1	1	1	1	1
LAB SAMPLE I.D.				GF903106-16	GF903106-17	GF903106-18	GF903106-19	GF903106-20
CLIENT SAMPLE I.D.				32309-4-20	32309-5-5	32309-5-10	32309-5-15	32309-5-20
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	10	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	2	ND	ND	ND	ND	ND	ND
Trichloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-4-20	32309-5-5	32309-5-10	32309-5-15	32309-5-20
Toluene	1	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	2	ND	ND	ND	ND	ND	ND
Total Xylenes	2	4	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
Acetone	50	75	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	75	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND	ND	ND	ND
Ethanol	500	1000	ND	ND	ND	ND	ND	ND
MTBE	2	5	ND	ND	ND	ND	ND	ND
ETBE	2	5	ND	ND	ND	ND	ND	ND
DIPE	2	5	ND	ND	ND	ND	ND	ND
TAME	2	5	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED			03-24	03-24-09	03-24-09	03-24-09	03-24-09	03-24-09
DILUTION FACTOR (DF)			1	1	1	1	1	1
LAB SAMPLE I.D.				GF903106-21	GF903106-22	GF903106-23	GF903106-24	GF903106-25
CLIENT SAMPLE I.D.				32309-6-5	32309-6-10	32309-6-15	32309-6-20	32309-7-5
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	10	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	2	ND	ND	ND	ND	ND	ND
Trichloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-6-5	32309-6-10	32309-6-15	32309-6-20	32309-7-5
Toluene	1	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	2	ND	ND	ND	ND	ND	ND
Total Xylenes	2	4	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
Acetone	50	75	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	75	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND	ND	ND	ND
Ethanol	500	1000	ND	ND	ND	ND	ND	ND
MTBE	2	5	ND	ND	ND	ND	ND	ND
ETBE	2	5	ND	ND	ND	ND	ND	ND
DIPE	2	5	ND	ND	ND	ND	ND	ND
TAME	2	5	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED			03-24	03-24-09	03-24-09	03-24-09	03-24-09	03-24-09
DILUTION FACTOR (DF)			1	1	1	1	1	1
LAB SAMPLE I.D.				GF903106-26	GF903106-27	GF903106-28	GF903106-29	GF903106-30
CLIENT SAMPLE I.D.				32309-7-10	32309-7-15	32309-7-20	32309-8-5	32309-8-10
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	10	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	2	ND	ND	ND	ND	ND	ND
Trichloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	ND	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-7-10	32309-7-15	32309-7-20	32309-8-5	32309-8-10
Toluene	1	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	2	ND	ND	ND	ND	ND	ND
Total Xylenes	2	4	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
Acetone	50	75	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	75	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND	ND	ND	ND
Ethanol	500	1000	ND	ND	ND	ND	ND	ND
MTBE	2	5	ND	ND	ND	ND	ND	ND
ETBE	2	5	ND	ND	ND	ND	ND	ND
DIPE	2	5	ND	ND	ND	ND	ND	ND
TAME	2	5	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED			03-24	03-24-09	03-24-09	03-24-09	03-24-09	03-24-09
DILUTION FACTOR (DF)			1	1	1	1	2.5	1
LAB SAMPLE I.D.				GF903106-31	GF903106-32	GF903106-33	GF903106-34	GF903106-35
CLIENT SAMPLE I.D.				32309-8-15	32309-8-20	32309-9-5	32309-9-10	32309-9-15
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND	ND	ND	ND
Chloromethane	2	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1	2	ND	ND	ND	ND	ND	ND
Bromomethane	2	5	ND	ND	ND	ND	ND	ND
Chloroethane	2	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Iodomethane	2	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	10	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	2	5	ND	ND	ND	ND	ND	ND
Chloroform	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
Benzene	1	2	ND	ND	ND	ND	ND	ND
Trichloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	2	5	ND	ND	ND	ND	ND	ND
Dibromomethane	2	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	1	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	2	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	2	10	ND	ND	ND	ND	ND	ND
Bromoform	2	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2	5	ND	ND	ND	ND	379 *	ND
Bromobenzene	2	5	ND	ND	ND	ND	ND	ND



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-8-15	32309-8-20	32309-9-5	32309-9-10	32309-9-15
Toluene	1	2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2	4	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND	ND	ND	ND
Chlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	2	ND	ND	ND	ND	ND	ND
Total Xylenes	2	4	ND	ND	ND	ND	ND	ND
Styrene	2	5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	2	5	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2	5	ND	ND	ND	ND	358*	ND
2-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	2	5	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	2	5	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	2	5	ND	ND	ND	ND	670*	ND
1,3-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	2	5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
n-Butylbenzene	2	5	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2	5	ND	ND	ND	ND	ND	ND
Naphthalene	2	5	ND	ND	ND	ND	1,920*	ND
1,2,3-Trichlorobenzene	2	5	ND	ND	ND	ND	ND	ND
Acetone	50	75	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	75	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND	ND	ND	ND
Ethanol	500	1000	ND	ND	ND	ND	ND	ND
MTBE	2	5	ND	ND	ND	ND	ND	ND
ETBE	2	5	ND	ND	ND	ND	ND	ND
DIPE	2	5	ND	ND	ND	ND	ND	ND
TAME	2	5	ND	ND	ND	ND	ND	ND
T-Butyl Alcohol	20	50	ND	ND	ND	ND	ND	ND

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 1 of 2) Reporting Unit: µg/kg(ppb)

DATE ANALYZED			03-24	03-24-09	03-24-09			
DILUTION FACTOR (DF)			1	1	1			
LAB SAMPLE I.D.				GF903106-36	GF903106-37			
CLIENT SAMPLE I.D.				32309-9-20	32309-9-20 Dup			
COMPOUND	MDL	PQL	MB					
Dichlorodifluoromethane	2	5	ND	ND	ND			
Chloromethane	2	5	ND	ND	ND			
Vinyl Chloride	1	2	ND	ND	ND			
Bromomethane	2	5	ND	ND	ND			
Chloroethane	2	5	ND	ND	ND			
Trichlorofluoromethane	2	5	ND	ND	ND			
1,1-Dichloroethene	2	5	ND	ND	ND			
Iodomethane	2	5	ND	ND	ND			
Methylene Chloride	5	10	ND	ND	ND			
trans-1,2-Dichloroethene	2	5	ND	ND	ND			
1,1-Dichloroethane	2	5	ND	ND	ND			
2,2-Dichloropropane	2	5	ND	ND	ND			
cis-1,2-Dichloroethene	2	5	ND	ND	ND			
Bromochloromethane	2	5	ND	ND	ND			
Chloroform	2	5	ND	ND	ND			
1,2-Dichloroethane	1	5	ND	ND	ND			
1,1,1-Trichloroethane	2	5	ND	ND	ND			
Carbon tetrachloride	1	5	ND	ND	ND			
1,1-Dichloropropene	2	5	ND	ND	ND			
Benzene	1	2	ND	ND	ND			
Trichloroethene	2	4	ND	ND	ND			
1,2-Dichloropropane	2	5	ND	ND	ND			
Bromodichloromethane	2	5	ND	ND	ND			
Dibromomethane	2	5	ND	ND	ND			
Trans-1,3-Dichloropropene	2	5	ND	ND	ND			
cis-1,3-Dichloropropene	2	5	ND	ND	ND			
1,1,2-Trichloroethane	2	5	ND	ND	ND			
1,3-Dichloropropane	1	5	ND	ND	ND			
Dibromochloromethane	2	5	ND	ND	ND			
2-Chloroethylvinyl ether	2	10	ND	ND	ND			
Bromoform	2	5	ND	ND	ND			
Isopropylbenzene	2	5	ND	ND	ND			
Bromobenzene	2	5	ND	ND	ND			



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified

Lab Job No.: GF903106
Matrix: Soil

Date Reported: 03-30-2009
Date Sampled: 03-23-2009

EPA 8260B (VOCs & Oxygenates by GC/MS, Page 2 of 2)

Reporting Unit: µg/kg(ppb)

COMPOUND	MDL	PQL	MB	32309-9-20	32309-9-20 Dup			
Toluene	1	2	ND	ND	ND			
Tetrachloroethene	2	4	ND	ND	ND			
1,2-Dibromoethane(EDB)	2	5	ND	ND	ND			
Chlorobenzene	2	5	ND	ND	ND			
1,1,1,2-Tetrachloroethane	2	5	ND	ND	ND			
Ethylbenzene	1	2	ND	ND	ND			
Total Xylenes	2	4	ND	ND	ND			
Styrene	2	5	ND	ND	ND			
1,1,2,2-Tetrachloroethane	2	5	ND	ND	ND			
1,2,3-Trichloropropane	2	5	ND	ND	ND			
n-Propylbenzene	2	5	ND	ND	ND			
2-Chlorotoluene	2	5	ND	ND	ND			
4-Chlorotoluene	2	5	ND	ND	ND			
1,3,5-Trimethylbenzene	2	5	ND	ND	ND			
tert-Butylbenzene	2	5	ND	ND	ND			
1,2,4-Trimethylbenzene	2	5	ND	ND	ND			
Sec-Butylbenzene	2	5	ND	ND	ND			
1,3-Dichlorobenzene	2	5	ND	ND	ND			
p-Isopropyltoluene	2	5	ND	ND	ND			
1,4-Dichlorobenzene	2	5	ND	ND	ND			
1,2-Dichlorobenzene	2	5	ND	ND	ND			
n-Butylbenzene	2	5	ND	ND	ND			
1,2,4-Trichlorobenzene	2	5	ND	ND	ND			
1,2-Dibromo-3-Chloropropane	2	5	ND	ND	ND			
Hexachlorobutadiene	2	5	ND	ND	ND			
Naphthalene	2	5	ND	ND	ND			
1,2,3-Trichlorobenzene	2	5	ND	ND	ND			
Acetone	50	75	ND	ND	ND			
2-Butanone (MEK)	50	75	ND	ND	ND			
4-Methyl-2-pentanone (MIBK)	50	75	ND	ND	ND			
Ethanol	500	1000	ND	ND	ND			
MTBE	2	5	ND	ND	ND			
ETBE	2	5	ND	ND	ND			
DIPE	2	5	ND	ND	ND			
TAME	2	5	ND	ND	ND			
T-Butyl Alcohol	20	50	ND	ND	ND			

MDL=Method Detection Limit; PQL=Practical Quantification Limit; MB=Method Blank;
ND=Not Detected (below DF × PQL), * Obtained from a higher dilution analysis. J=trace concentration.



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Matrix: Soil
Digestion Method: EPA 3050B
Batch No. for 6010B: 0324-MS1
Batch No. for Hg: 0325-HgS1

Lab Job No.: GF903106
Date Sampled: 03-23-2009
Date Received: 03-23-2009
Date Digested: 03-24-2009
Date Analyzed: 03-24-2009
Date Analyzed: 03-25-2009
Date Reported: 03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-1	GF903106-2	GF903106-3	GF903106-4	GF903106-5	PQL
	Method		32309-1-5'	32309-1-10'	32309-1-15'	32309-1-20'	32309-2-5'	
Antimony (Sb)	6010B	ND	ND	ND	2.7	ND	ND	2
Arsenic (As)	6010B	ND	4.1	4.8	12.4	9.1	2.1	0.5
Barium (Ba)	6010B	ND	209	191	252	136	102	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	ND	2
Chromium (Cr)	6010B	ND	18.5	30.8	34.2	18.8	10.9	2
Cobalt (Co)	6010B	ND	10.3	13.8	16.3	10.9	6.4	2
Copper (Cu)	6010B	ND	23.5	25.1	38.8	21.5	11.3	2
Lead (Pb)	6010B	ND	26.3	10.7	31.1	9.7	7.8	2
Mercury (Hg)	7471A	ND	0.14	0.07	0.08	0.10	0.24	0.05
Molybdenum (Mo)	6010B	ND	2.1	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	15.2	24.6	29.3	16.3	9.4	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	57.1	107	175	77.8	38.5	2
Zinc (Zn)	6010B	ND	146	79.8	89.4	72.6	69.9	1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Matrix: Soil
Digestion Method: EPA 3050B
Batch No. for 6010B: 0324-MS1
Batch No. for Hg: 0325-HgS1

Lab Job No.: GF903106
Date Sampled: 03-23-2009
Date Received: 03-23-2009
Date Digested: 03-24-2009
Date Analyzed: 03-24-2009
Date Analyzed: 03-25-2009
Date Reported: 03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-6	GF903106-7	GF903106-8	GF903106-9	GF903106-10	PQL
	Method		32309-2-10'	32309-2-15'	32309-2-20'	32309-3-5	32309-3-10	
Antimony (Sb)	6010B	ND	8.6	ND	ND	ND	ND	2
Arsenic (As)	6010B	ND	5.2	13.4	12.1	4.2	5.8	0.5
Barium (Ba)	6010B	ND	294	243	190	173	171	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	ND	2
Chromium (Cr)	6010B	ND	31.8	30.3	21.5	24.4	22.2	2
Cobalt (Co)	6010B	ND	14.8	13.5	14.9	13.8	12.9	2
Copper (Cu)	6010B	ND	42.5	35.3	22.5	18.1	23.8	2
Lead (Pb)	6010B	ND	469	9.7	5.1	31.8	13.5	2
Mercury (Hg)	7471A	ND	1.29	0.09	0.016	ND	0.01	0.05
Molybdenum (Mo)	6010B	ND	2.4	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	105	26.4	18.9	18.4	23.1	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	61.6	106	99.8	91.3	83.5	2
Zinc (Zn)	6010B	ND	226.8	76.1	81.1	65.8	76.9	1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

Client:	Greve Financial	Lab Job No.:	GF903106
Project:	Not Specified		
Project Site:	Green Leaf, Santa Fe Springs	Date Sampled:	03-23-2009
Matrix:	Soil	Date Received:	03-23-2009
Digestion Method:	EPA 3050B	Date Digested:	03-24-2009
Batch No. for 6010B:	0324-MS1	Date Analyzed:	03-24-2009
Batch No. for Hg:	0325-HgS1	Date Analyzed:	03-25-2009
		Date Reported:	03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-11	GF903106-12	GF903106-13	GF903106-14	GF903106-15	PQL
	Method		32309-3-15	32309-3-20	32309-4-5	32309-4-10	32309-4-15	
Antimony (Sb)	6010B	ND	ND	ND	ND	ND	ND	2
Arsenic (As)	6010B	ND	12.8	6.5	4.4	5.2	2.9	0.5
Barium (Ba)	6010B	ND	300	45.1	171	186	30.1	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	ND	2
Chromium (Cr)	6010B	ND	16.3	7.1	27.9	27.2	4.1	2
Cobalt (Co)	6010B	ND	9.1	4.3	14.5	15.4	3.3	2
Copper (Cu)	6010B	ND	22.6	10.5	18.4	22.5	5.8	2
Lead (Pb)	6010B	ND	3.9	4.0	4.7	6.9	6.9	2
Mercury (Hg)	7471A	ND	0.13	0.08	0.11	0.12	ND	0.05
Molybdenum (Mo)	6010B	ND	ND	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	15.9	5.5	20.1	22.3	3.2	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	78.6	32.3	107	105	19.8	2
Zinc (Zn)	6010B	ND	55.9	36.5	71.2	77.9	30.3	1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Matrix: Soil
Digestion Method: EPA 3050B
Batch No. for 6010B: 0324-MS1
Batch No. for Hg: 0325-HgS1

Lab Job No.: GF903106
Date Sampled: 03-23-2009
Date Received: 03-23-2009
Date Digested: 03-24-2009
Date Analyzed: 03-24-2009
Date Analyzed: 03-25-2009
Date Reported: 03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-16	GF903106-17	GF903106-18	GF903106-19	GF903106-20	PQL
	Method		32309-4-20	32309-5-5	32309-5-10	32309-5-15	32309-5-20	
Antimony (Sb)	6010B	ND	ND	ND	ND	ND	ND	2
Arsenic (As)	6010B	ND	4.9	2.9	4.7	6.9	5.7	0.5
Barium (Ba)	6010B	ND	50.6	102	165	152	80.6	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	ND	2
Chromium (Cr)	6010B	ND	4.8	12.4	28.1	23.2	15.6	2
Cobalt (Co)	6010B	ND	5.0	7.1	14.2	12.5	8.9	2
Copper (Cu)	6010B	ND	6.4	13.5	19.2	23.7	16.5	2
Lead (Pb)	6010B	ND	ND	12.1	7.3	6.6	7.1	2
Mercury (Hg)	7471A	ND	ND	0.06	0.06	0.07	0.07	0.05
Molybdenum (Mo)	6010B	ND	ND	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	4.2	11.6	21.4	19.8	12.3	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	27.5	46.4	97.5	86.7	64.8	2
Zinc (Zn)	6010B	ND	34.0	58.3	70.2	75.9	54.3	1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Matrix: Soil
Digestion Method: EPA 3050B
Batch No. for 6010B: 0325-MS1
Batch No. for Hg: 0325-HgS2

Lab Job No.: GF903106
Date Sampled: 03-23-2009
Date Received: 03-23-2009
Date Digested: 03-24-2009
Date Analyzed: 03-25-2009
Date Analyzed: 03-25-2009
Date Reported: 03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-21	GF903106-22	GF903106-23	GF903106-24	GF903106-25	PQL
	Method		32309-6-5	32309-6-10	32309-6-15	32309-6-20	32309-7-5	
Antimony (Sb)	6010B	ND	ND	ND	ND	ND	4.3	2
Arsenic (As)	6010B	ND	ND	4.6	7.0	2.8	5.9	0.5
Barium (Ba)	6010B	ND	39.8	202	221	85.9	358	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	4.4	2
Chromium (Cr)	6010B	ND	6.6	26.6	31.3	6.0	23.3	2
Cobalt (Co)	6010B	ND	3.3	15.1	16.9	5.0	11.3	2
Copper (Cu)	6010B	ND	3.0	21.4	22.3	7.8	57.2	2
Lead (Pb)	6010B	ND	ND	7.0	7.6	8.2	3,870	2
Mercury (Hg)	7471A	ND	0.10	ND	0.09	0.19	0.10	0.05
Molybdenum (Mo)	6010B	ND	ND	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	5.4	23.8	30.3	6.6	21.2	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	23.9	99.5	116.5	28.9	82.1	2
Zinc (Zn)	6010B	ND	36.1	80.2	85.6	32.5	142	1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Matrix: Soil
Digestion Method: EPA 3050B
Batch No. for 6010B: 0325-MS1
Batch No. for Hg: 0325-HgS2

Lab Job No.: GF903106
Date Sampled: 03-23-2009
Date Received: 03-23-2009
Date Digested: 03-24-2009
Date Analyzed: 03-25-2009
Date Analyzed: 03-25-2009
Date Reported: 03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-26	GF903106-27	GF903106-28	GF903106-29	GF903106-30	PQL
	Method		32309-7-10	32309-7-15	32309-7-20	32309-8-5	32309-8-10	
Antimony (Sb)	6010B	ND	ND	2.1	ND	ND	ND	2
Arsenic (As)	6010B	ND	7.7	13.7	5.5	1.7	3.2	0.5
Barium (Ba)	6010B	ND	1,860	183	55.3	54.7	114	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	ND	2
Chromium (Cr)	6010B	ND	32.4	27.1	7.9	7.6	14.9	2
Cobalt (Co)	6010B	ND	9.1	18.4	4.9	4.3	8.4	2
Copper (Cu)	6010B	ND	21.1	32.8	9.9	5.9	11.6	2
Lead (Pb)	6010B	ND	114	8.0	3.2	8.6	9.4	2
Mercury (Hg)	7471A	ND	0.05	0.13	0.06	0.08	0.08	0.05
Molybdenum (Mo)	6010B	ND	2.4	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	22.4	25.7	5.8	7.4	12.8	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	82.8	122	36.2	30.8	60.9	2
Zinc (Zn)	6010B	ND	77.2	88.2	35.7	51.3	69.6	1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Matrix: Soil
Digestion Method: EPA 3050B
Batch No. for 6010B: 0325-MS1
Batch No. for Hg: 0325-HgS2

Lab Job No.: GF903106
Date Sampled: 03-23-2009
Date Received: 03-23-2009
Date Digested: 03-24-2009
Date Analyzed: 03-25-2009
Date Analyzed: 03-25-2009
Date Reported: 03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-31	GF903106-32	GF903106-33	GF903106-34	GF903106-35	PQL
	Method		32309-8-15	32309-8-20	32309-9-5	32309-9-10	32309-9-15	
Antimony (Sb)	6010B	ND	ND	ND	ND	ND	ND	2
Arsenic (As)	6010B	ND	4.2	5.6	3.0	3.8	7.9	0.5
Barium (Ba)	6010B	ND	108	99.8	130	165	92.3	2
Beryllium (Be)	6010B	ND	ND	ND	ND	ND	ND	2
Cadmium (Cd)	6010B	ND	ND	ND	ND	ND	ND	2
Chromium (Cr)	6010B	ND	14.7	4.4	20.3	14.7	11.7	2
Cobalt (Co)	6010B	ND	9.4	3.9	10.9	8.7	8.5	2
Copper (Cu)	6010B	ND	13.3	10.7	18.7	20.3	14.9	2
Lead (Pb)	6010B	ND	4.1	3.0	59.0	25.2	6.6	2
Mercury (Hg)	7471A	ND	0.30	ND	ND	0.08	0.08	0.05
Molybdenum (Mo)	6010B	ND	ND	ND	ND	ND	ND	2
Nickel (Ni)	6010B	ND	13.8	4.6	18.1	14.3	12.1	2
Selenium (Se)	6010B	ND	ND	ND	ND	ND	ND	0.5
Silver (Ag)	6010B	ND	ND	ND	ND	ND	ND	2
Thallium (Tl)	6010B	ND	ND	ND	ND	ND	ND	2
Vanadium (V)	6010B	ND	63.3	25.7	74.2	54.6	63.8	2
Zinc (Zn)	6010B	ND	51.9	30.4	99.9	127	48.1	1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

Client: Greve Financial
Project: Not Specified
Project Site: Green Leaf, Santa Fe Springs
Matrix: Soil
Digestion Method: EPA 3050B
Batch No. for 6010B: 0325-MS1
Batch No. for Hg: 0325-HgS2

Lab Job No.: GF903106
Date Sampled: 03-23-2009
Date Received: 03-23-2009
Date Digested: 03-24-2009
Date Analyzed: 03-25-2009
Date Analyzed: 03-25-2009
Date Reported: 03-30-2009

EPA 6010B/7471A for Cam Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA	Method Blank	GF903106-36	GF903106-37				PQL
	Method		32309-9-20	32309-9-20 Dup				
Antimony (Sb)	6010B	ND	ND	ND				2
Arsenic (As)	6010B	ND	2.0	4.1				0.5
Barium (Ba)	6010B	ND	212	87.9				2
Beryllium (Be)	6010B	ND	ND	ND				2
Cadmium (Cd)	6010B	ND	ND	ND				2
Chromium (Cr)	6010B	ND	24.6	11.9				2
Cobalt (Co)	6010B	ND	11.6	7.9				2
Copper (Cu)	6010B	ND	25.9	13.6				2
Lead (Pb)	6010B	ND	2.7	3.0				2
Mercury (Hg)	7471A	ND	0.20	0.09				0.05
Molybdenum (Mo)	6010B	ND	ND	ND				2
Nickel (Ni)	6010B	ND	17.2	11.4				2
Selenium (Se)	6010B	ND	ND	ND				0.5
Silver (Ag)	6010B	ND	ND	ND				2
Thallium (Tl)	6010B	ND	ND	ND				2
Vanadium (V)	6010B	ND	88.8	52.3				2
Zinc (Zn)	6010B	ND	66.9	50.5				1

PQL: Practical Quantitation Limit.

ND: Not Detected (at the specified limit).



Alpha Scientific Corporation

Environmental Laboratories

03-30-2009

EPA 8260B Batch QA/QC Report

Client: Greve Financial
Project: Not Specified
Matrix: Soil
Batch No: 0323-VOBS2

Lab Job No.: GF903106
Lab Sample ID: GF903106-2
Date Analyzed: 03-24-2009

I. MS/MSD Report Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	23.5	24.0	117.5	120.0	2.1	30	70-130
Benzene	ND	20	16.0	16.2	80.0	81.0	1.2	30	70-130
Trichloro-ethene	ND	20	17.1	18.4	85.5	92.0	7.3	30	70-130
Toluene	ND	20	19.5	16.2	97.5	81.0	18.5	30	70-130
Chlorobenzene	ND	20	17.9	17.7	89.5	88.5	1.1	30	70-130

II. LCS Result Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	23.0	20.0	115.0	80-120
Benzene	17.8	20.0	89.0	80-120
Trichloro-ethene	19.5	20.0	97.5	80-120
Toluene	20.3	20.0	101.5	80-120
Chlorobenzene	17.4	20.0	87.0	80-120

ND: Not Detected (at the specified limit)



Alpha Scientific Corporation

Environmental Laboratories

03-30-2009

EPA 8260B Batch QA/QC Report

Client: Greve Financial
Project: Not Specified
Matrix: Soil
Batch No: 0323-VOGS1

Lab Job No.: GF903106
Lab Sample ID: GF903106-21
Date Analyzed: 03-24-2009

I. MS/MSD Report Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	21.2	19.2	106.0	96.0	9.9	30	70-130
Benzene	ND	20	20.5	19.2	102.5	96.0	6.5	30	70-130
Trichloro-ethene	ND	20	20.7	19.7	103.5	98.5	5.0	30	70-130
Toluene	ND	20	19.9	18.8	99.5	94.0	5.7	30	70-130
Chlorobenzene	ND	20	22.3	17.9	111.5	89.5	21.9	30	70-130

II. LCS Result Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	20.6	20.0	103.0	80-120
Benzene	22.6	20.0	113.0	80-120
Trichloro-ethene	22.1	20.0	110.5	80-120
Toluene	22.4	20.0	112.0	80-120
Chlorobenzene	21.9	20.0	109.5	80-120

ND: Not Detected (at the specified limit)



Alpha Scientific Corporation
Environmental Laboratories

03-30-2009

**EPA 6010B/7471A for Cam Metals (TTLC)
Batch QA/QC Report**

Client: Greve Financial
Project: Not Specified
Matrix: Soil
Batch No. for 6010B: 0324-MS1
Batch No. for Hg: 0325-HgS1

Lab Job No.: GF903106
Lab Sample ID: LCS
Date Analyzed: 03-24-2009
Date Analyzed: 03-25-2009

LCS/LCSD Report

Analyte	MB Conc.	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Antimony (Sb)	ND	77.0	92.0	17.8	30	70-130
Arsenic (As)	ND	92.0	95.0	3.2	30	70-130
Barium (Ba)	ND	94.0	91.0	3.2	30	70-130
Beryllium (Be)	ND	87.0	86.0	1.2	30	70-130
Cadmium (Cd)	ND	96.0	99.0	3.1	30	70-130
Chromium (Cr)	ND	92.0	85.0	7.9	30	70-130
Cobalt (Co)	ND	95.0	99.0	4.1	30	70-130
Copper (Cu)	ND	89.0	86.0	3.4	30	70-130
Lead (Pb)	ND	95.0	97.0	2.1	30	70-130
Mercury (Hg)	ND	91.6	90.8	0.9	30	70-130
Molybdenum (Mo)	ND	82.0	91.0	10.4	30	70-130
Nickel (Ni)	ND	94.0	96.0	2.1	30	70-130
Selenium (Se)	ND	95.0	98.0	3.1	30	70-130
Silver (Ag)	ND	76.0	74.0	2.7	30	70-130
Thallium (Tl)	ND	89.0	98.0	9.6	30	70-130
Vanadium (V)	ND	94.0	86.0	8.9	30	70-130
Zinc (Zn)	ND	103.0	104.0	1.0	30	70-130

ND: Not Detected



Alpha Scientific Corporation
Environmental Laboratories

03-30-2009

**EPA 6010B/7471A for Cam Metals (TTLC)
Batch QA/QC Report**

Client: Greve Financial
Project: Not Specified
Matrix: Soil
Batch No. for 6010B: 0325-MS1
Batch No. for Hg: 0325-HgS2

Lab Job No.: GF903106
Lab Sample ID: LCS
Date Analyzed: 03-25-2009
Date Analyzed: 03-25-2009

LCS/LCSD Report

Analyte	MB Conc.	LCS %Rec.	LCSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Antimony (Sb)	ND	88.0	100.0	12.8	30	70-130
Arsenic (As)	ND	102.0	103.0	1.0	30	70-130
Barium (Ba)	ND	101.0	100.0	1.0	30	70-130
Beryllium (Be)	ND	94.0	94.0	0.0	30	70-130
Cadmium (Cd)	ND	102.0	100.0	2.0	30	70-130
Chromium (Cr)	ND	96.0	102.0	6.1	30	70-130
Cobalt (Co)	ND	107.0	106.0	0.9	30	70-130
Copper (Cu)	ND	96.0	100.0	4.1	30	70-130
Lead (Pb)	ND	100.0	96.0	4.1	30	70-130
Mercury (Hg)	ND	103.2	98.0	5.2	30	70-130
Molybdenum (Mo)	ND	92.0	98.0	6.3	30	70-130
Nickel (Ni)	ND	102.0	101.0	1.0	30	70-130
Selenium (Se)	ND	98.0	96.0	2.1	30	70-130
Silver (Ag)	ND	82.0	86.0	4.8	30	70-130
Thallium (Tl)	ND	98.0	103.0	5.0	30	70-130
Vanadium (V)	ND	92.0	88.0	4.4	30	70-130
Zinc (Zn)	ND	109.0	104.0	4.7	30	70-130

ND: Not Detected



ALPHA SCIENTIFIC CORPORATION

5625058260

Page 1 of 3

CHAIN OF CUSTODY RECORD

Lab Job Number GF903106

Client: Greve Funeral Services							Analyses Requested										T.A.T. Requested <input type="checkbox"/> Rush 8 12 24 hrs <input type="checkbox"/> 2-3 days <input checked="" type="checkbox"/> Normal							
Address: 9915 Greenleaf Ave Ste Fe Springs, CA							8015M (Gasoline)	8015M (Diesel)	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals										Sample Condition <input checked="" type="checkbox"/> Chilled <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Sample seals		
Report Attention: M Slatten		Phone: 951-9706955		Fax:		Sampled by: M Slatten																Remark		
Project Name/No.		Project Site: Greenleaf																						
Client Sample ID	Lab Sample ID	Sample Collect		Matrix Type	Sample Preserv	No., type* & size of container																		
32309-1-5'	GF903106-1	3/23	0920	S	NA	6" Acrylic																		
-1-10'	-2		0930																					
-1-15'	-3		0940																					
-1-20'	-4		0950																					
32309-2-5'	-5		1020																					
-10'	-6		1030																					
-15'	-7		1040																					
-20'	-8		1050																					
32309-3-5	-9		1110																					
-10	-10		1115																					
-15	-11		1120																					
-20	-12		1130																					
32309-4-5	-13		1150																					
-10	-14		1200																					
-15	-15		1205																					
-20	-16		1210																					
Relinquished by: M Slatten		Company: CSI		Date: 3/23/09	Time: 4:25pm	Received by: [Signature]		Company: ASC		Date: 3-23-09	Time: 4:20pm	Container types: M=Metal Tube A=Air Bag G=Glass bottle		P=Plastic bottle V=VOA vial										
Relinquished by:		Company:		Date:	Time:	Received by:		Company:		Date:	Time:													

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

